

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:32:31

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 95.95m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A001

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.22 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.55 kg/m²

Fail

Excess emissions = 0.33 kg/m² (1.9 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

51.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

52.7 kWh/m²

Fail

Excess energy = 1.00 kg/m² (01.9 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

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6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	3.36m ²
Windows facing: South	5.5m ²
Windows facing: East	2.52m ²
Windows facing: South	2.25m ²
Ventilation rate:	2.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:32:12

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.3m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A003

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.67 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.24 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

52.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Medium	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: West	2.25m ²
Ventilation rate:	2.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:31:53

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 77.28m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A006

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.29 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.25 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

63.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

60.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

Roof

(no roof)

Openings

1.36 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: North	4.5m ²
Windows facing: East	5.5m ²
Windows facing: East	2.25m ²
Ventilation rate:	3.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:31:34

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 95.95m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A102

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

14.29 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

13.40 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

37.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.7 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	6.72m ²
Windows facing: South	5.5m ²
Windows facing: East	2.52m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:31:15

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.3m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A104

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.35 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.85 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

40.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

38.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	High	Fail
Based on:		
Overshading:	Average or unknown	
Windows facing: West	5.5m ²	
Windows facing: West	2.25m ²	
Ventilation rate:	2.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:30:53

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.58m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A105

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.32 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.82 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

39.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.5 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: West	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:30:35

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.58m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A106

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.37 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.05 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

40.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

38.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	11m ²
Windows facing: West	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:30:17

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 77.28m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A107

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.3 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.03 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

48.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

43.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.15 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.36 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: North	4.5m ²
Windows facing: East	5.5m ²
Windows facing: East	2.25m ²
Ventilation rate:	6.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:30:00

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 95.95m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A202

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

14.29 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

13.40 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

37.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.7 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	6.72m ²
Windows facing: South	5.5m ²
Windows facing: East	2.52m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:29:44

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.3m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A204

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.35 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.85 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

40.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

38.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	High	Fail
Based on:		
Overshading:	Average or unknown	
Windows facing: West	5.5m ²	
Windows facing: West	2.25m ²	
Ventilation rate:	2.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:29:26

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.58m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A205

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.32 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.82 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

39.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.5 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: West	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:29:10

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.58m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A206

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.37 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.05 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

40.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

38.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	11m ²
Windows facing: West	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:28:54

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 77.28m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A207

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.3 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.03 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

48.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

43.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.15 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.36 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: North	4.5m ²
Windows facing: East	5.5m ²
Windows facing: East	2.25m ²
Ventilation rate:	6.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:28:36

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 95.95m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A302

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.56 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.75 kg/m²

Fail

Excess emissions = 0.19 kg/m² (1.1 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

49.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

50.0 kWh/m²

Fail

Excess energy = 0.79 kg/m² (01.6 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	6.72m ²
Windows facing: South	5.5m ²
Windows facing: East	2.52m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:28:21

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.3m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A304

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.67 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.24 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

52.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Medium	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: West	2.25m ²
Ventilation rate:	2.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:28:04

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.58m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A305

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.67 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.23 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

51.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

50.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: West	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:27:49

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.58m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A306

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.65 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.37 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

52.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: West	11m ²
Windows facing: West	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:27:34

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 77.28m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: A307

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.55 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.25 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

59.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

56.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.15 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.36 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.5m ²
Windows facing: North	4.5m ²
Windows facing: East	5.5m ²
Windows facing: East	2.25m ²
Ventilation rate:	6.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:27:20

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 69.17m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B101

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.74 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.02 kg/m²

Fail

Excess emissions = 0.28 kg/m² (1.4 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

56.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

55.9 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.13 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

-

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Windows facing: West	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:27:05

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.56m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B102

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.58 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.32 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

62.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

54.5 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.08 (max. 0.25)

0.16 (max. 0.70)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: West	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:26:51

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.35m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B103

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

22.77 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

21.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

64.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

57.3 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.10 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

-

-

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:26:38

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 69.17m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B201

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.09 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.95 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

37.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

40.0 kWh/m²

Fail

Excess energy = 2.14 kg/m² (05.7 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Windows facing: West	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:26:25

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.56m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B202

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.07 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.63 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

44.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

40.1 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: West	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:26:12

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.35m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B203

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.02 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.60 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

44.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

41.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: North	11m ²	
Ventilation rate:	4.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:25:59

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 69.17m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B301

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.45 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.79 kg/m²

Fail

Excess emissions = 0.34 kg/m² (1.8 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

50.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.1 kWh/m²

Fail

Excess energy = 1.08 kg/m² (02.2 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Windows facing: West	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:25:47

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.56m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B302

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.57 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.09 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

57.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

53.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: West	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:25:35

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.35m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: B303

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.41 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

21.08 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

57.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

54.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:25:23

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 56.97m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C101

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.88 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.86 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

57.1 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

55.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
-----------------------------------	-----------------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:25:11

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 57.01m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C102

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.76 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.60 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

50.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

50.5 kWh/m²

Fail

Excess energy = 0.06 kg/m² (00.1 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.13 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

-

-

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:24:56

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 76.28m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C103

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.45 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.60 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

57.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

49.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

OK

Roof

(no roof)

-

-

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:24:46

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C104

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.3 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.94 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

65.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

57.1 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

OK

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	16.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:24:35

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.67m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C105

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.98 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.34 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

63.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

54.9 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.10 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

-

-

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:24:24

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.76m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C106

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.42 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.13 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

57.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

OK

Roof

(no roof)

-

-

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:24:13

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.76m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C107

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.07 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.06 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

43.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

45.9 kWh/m²

Fail

Excess energy = 2.00 kg/m² (04.6 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.13 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

-

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:24:03

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.75m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C108

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.84 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

21.81 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

57.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

56.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.11 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:23:53

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 56.97m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C201

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.08 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.27 kg/m²

Fail

Excess emissions = 0.19 kg/m² (1.1 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

37.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

41.8 kWh/m²

Fail

Excess energy = 4.30 kWh/m² (11.5 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:23:43

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 57.01m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C202

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.15 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.47 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

31.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

34.2 kWh/m²

Fail

Excess energy = 2.51 kg/m² (07.9 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:23:33

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 76.28m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C203

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.09 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.16 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

40.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:23:24

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C204

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.68 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.19 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

46.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

42.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	16.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:23:14

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.67m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C205

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.35 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.61 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

45.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

40.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:23:05

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.76m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C206

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.12 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.31 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

40.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:22:55

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.76m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C207

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.01 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.09 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

27.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

29.6 kWh/m²

Fail

Excess energy = 1.83 kg/m² (06.6 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:22:47

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.75m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C208

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.04 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.99 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

38.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

41.2 kWh/m²

Fail

Excess energy = 3.20 kg/m² (08.4 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:22:38

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 56.97m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C301

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.48 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.19 kg/m²

Fail

Excess emissions = 0.71 kg/m² (3.6 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

50.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

53.2 kWh/m²

Fail

Excess energy = 3.24 kWh/m² (6.5 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:22:30

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 57.01m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C302

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.95 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.98 kg/m²

Fail

Excess emissions = 0.03 kg/m² (0.2 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

51.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

52.0 kWh/m²

Fail

Excess energy = 0.59 kg/m² (01.1 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:22:22

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 76.28m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C303

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.65 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

53.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

49.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:22:13

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C304

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.26 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.76 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

59.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

56.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	16.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:22:06

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.67m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C305

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.92 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.93 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

58.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

53.3 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:59

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.76m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C306

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.54 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.84 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

52.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

50.1 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:52

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.76m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C307

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.25 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.51 kg/m²

Fail

Excess emissions = 0.26 kg/m² (1.4 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

39.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

43.8 kWh/m²

Fail

Excess energy = 4.16 kWh/m² (10.5 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:45

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.75m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: C308

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.45 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.74 kg/m²

Fail

Excess emissions = 0.29 kg/m² (1.4 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

50.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

52.1 kWh/m²

Fail

Excess energy = 1.51 kg/m² (03.0 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:38

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 93.6m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D101

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.07 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.91 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

51.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

49.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.09 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

Openings

1.36 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	11m ²
Windows facing: South	2.25m ²
Windows facing: North	5.5m ²
Ventilation rate:	6.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:32

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D102

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.71 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.64 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

53.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

49.5 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

OK

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:26

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D103

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

22.57 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

21.29 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

63.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

55.9 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:20

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D104

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

22.27 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.68 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

60.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

53.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.10 (max. 0.25)

0.16 (max. 0.70)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	5.5m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:13

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 63.73m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D105

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.07 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

61.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

56.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

OK

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: East	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:21:04

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 66.61m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D106

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.68 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.12 kg/m²

Fail

Excess emissions = 0.44 kg/m² (2.4 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

51.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

52.1 kWh/m²

Fail

Excess energy = 0.70 kg/m² (01.4 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.15 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.12 (max. 0.25)

0.16 (max. 0.70)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: East	4.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:58

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 61.81m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D107

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.57 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.72 kg/m²

Fail

Excess emissions = 1.15 kg/m² (5.9 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

53.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

56.2 kWh/m²

Fail

Excess energy = 2.46 kg/m² (04.6 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.13 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	11m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:53

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 93.6m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D201

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

13.64 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

13.10 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

34.6 kWh/m²

Fail

Excess energy = 1.12 kg/m² (03.3 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

Floor

(no floor)

Roof

(no roof)

Openings

1.36 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	11m ²
Windows facing: South	2.25m ²
Windows facing: North	5.5m ²
Ventilation rate:	6.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:48

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D202

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.32 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.68 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

41.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

37.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: North	11m ²	
Ventilation rate:	4.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:43

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D203

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.84 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.40 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

43.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

40.7 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: North	11m ²	
Ventilation rate:	4.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:38

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D204

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.5 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.78 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

41.1 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

37.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	5.5m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:34

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 63.73m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D205

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.37 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.16 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

43.1 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

40.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: East	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:29

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 66.61m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D206

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

15.21 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.86 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

34.8 kWh/m²

Fail

Excess energy = 1.51 kg/m² (04.5 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.15 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

Floor

(no floor)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: East	4.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:25

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 61.81m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D207

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.17 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.80 kg/m²

Fail

Excess emissions = 0.63 kg/m² (3.9 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

35.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

40.4 kWh/m²

Fail

Excess energy = 4.48 kg/m² (12.5 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	11m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:21

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 93.6m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D301

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

15.97 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.60 kg/m²

Fail

Excess emissions = 0.63 kg/m² (3.9 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

45.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

48.4 kWh/m²

Fail

Excess energy = 3.07 kWh/m² (6.8 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.36 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Not significant	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	11m ²
Windows facing: South	2.25m ²
Windows facing: North	5.5m ²
Ventilation rate:	6.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:17

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D302

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20.71 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.15 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

53.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.5 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:13

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D303

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.22 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.87 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

56.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

54.3 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:10

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D304

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.13 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.33 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

54.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.7 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	5.5m ²
Windows facing: North	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:06

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 63.73m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D305

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.65 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.87 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

65.1 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

59.1 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.08 (max. 0.25)

0.08 (max. 0.70)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11m ²
Windows facing: East	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.08 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:03

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 66.61m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D306

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.33 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.07 kg/m²

Fail

Excess emissions = 0.74 kg/m² (4.3 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

44.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

47.9 kWh/m²

Fail

Excess energy = 3.57 kg/m² (08.1 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.15 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: East	4.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:20:00

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 61.81m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: D307

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.36 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.57 kg/m²

Fail

Excess emissions = 1.21 kg/m² (6.6 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

47.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

51.6 kWh/m²

Fail

Excess energy = 4.20 kWh/m² (8.9 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	11m ²
Windows facing: South	2.25m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:56

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G001

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

20 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.18 kg/m²

Fail

Excess emissions = 0.18 kg/m² (0.9 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

48.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

49.4 kWh/m²

Fail

Excess energy = 0.55 kg/m² (01.1 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

OK

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Medium	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: West	5.16m ²
Windows facing: West	2.16m ²
Ventilation rate:	2.00
Blinds/curtains:	Dark-coloured curtain or roller blind
	Closed 100% of daylight hours

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:53

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 93.3m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G004

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.15 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.98 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

49.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

48.1 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	11.49m ²
Ventilation rate:	2.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:50

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 92.15m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G006

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.43 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.04 kg/m²

Fail

Excess emissions = 1.61 kg/m² (9.8 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

46.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

52.0 kWh/m²

Fail

Excess energy = 5.45 kg/m² (11.7 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: South	9m ²
Windows facing: South	5.5m ²
Ventilation rate:	2.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:47

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G101

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.64 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.71 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

36.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: West	5.16m ²
Windows facing: West	2.16m ²
Ventilation rate:	4.00
Blinds/curtains:	Dark-coloured curtain or roller blind Closed 100% of daylight hours

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:45

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.01m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G104

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.06 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.71 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

38.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: North	12.96m ²
Ventilation rate:	4.00
Blinds/curtains:	Dark-coloured curtain or roller blind Closed 100% of daylight hours

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:42

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G204

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.9 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.79 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

32.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

31.7 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.16m ²
Windows facing: West	2.16m ²
Ventilation rate:	4.00
Blinds/curtains:	Dark-coloured curtain or roller blind Closed 100% of daylight hours

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:38

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.01m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G207

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.06 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

14.71 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

38.6 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

35.2 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	12.96m ²
Ventilation rate:	4.00
Blinds/curtains:	Dark-coloured curtain or roller blind Closed 100% of daylight hours

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:33

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 50.33m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: G304

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.6 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.81 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

36.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.0 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.18 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.31 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	5.16m ²
Windows facing: West	2.16m ²
Ventilation rate:	4.00
Blinds/curtains:	Dark-coloured curtain or roller blind Closed 100% of daylight hours

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:31

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J003

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

21.2 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

21.96 kg/m²

Fail

Excess emissions = 0.76 kg/m² (3.6 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

55.7 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

57.2 kWh/m²

Fail

Excess energy = 1.53 kg/m² (02.7 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.19 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

OK

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Medium	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	2.00
Blinds/curtains:	Dark-coloured curtain or roller blind
	Closed 100% of daylight hours

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.12 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:29

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J101

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.99 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.70 kg/m²

Fail

Excess emissions = 0.71 kg/m² (3.6 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

49.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

52.3 kWh/m²

Fail

Excess energy = 2.90 kg/m² (05.9 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.16 (max. 0.25)

0.16 (max. 0.70)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:27

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J102

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.89 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

32.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: East	9m ²	
Ventilation rate:	4.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:25

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J103

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.64 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.85 kg/m²

Fail

Excess emissions = 0.21 kg/m² (1.1 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

42.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

45.0 kWh/m²

Fail

Excess energy = 2.52 kg/m² (05.9 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.16 (max. 0.25)

0.16 (max. 0.70)

OK

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:24

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J105

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.89 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

32.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:22

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.63m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J109

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.28 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.48 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

55.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

50.1 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

0.06 (max. 0.25)

0.06 (max. 0.70)

OK

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Medium	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: North	13.5m ²
Windows facing: East	2.25m ²
Ventilation rate:	3.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.06 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:21

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 70.63m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J110

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.91 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.62 kg/m²

Fail

Excess emissions = 0.71 kg/m² (4.2 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

43.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

46.0 kWh/m²

Fail

Excess energy = 2.57 kg/m² (05.9 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.06 (max. 0.25)

0.06 (max. 0.70)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	13.5m ²
Windows facing: East	2.25m ²
Ventilation rate:	3.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Floors U-value	0.06 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:20

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J201

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.68 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.81 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

37.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: East	9m ²	
Ventilation rate:	4.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:19

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J202

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.89 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

32.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:17

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J203

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.4 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.06 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

30.8 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

29.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Medium	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: East	9m ²	
Ventilation rate:	4.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:15

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J205

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.89 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

32.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:12

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J301

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

17.68 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.81 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

37.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

36.8 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:10

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J302

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.89 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

32.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:09

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J401

Address :

Client Details:

Name:

Address :

**This report covers items included within the SAP calculations.
It is not a complete report of regulations compliance.**

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.99 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

20.20 kg/m²

Fail

Excess emissions = 0.21 kg/m² (1.1 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

49.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

50.3 kWh/m²

Fail

Excess energy = 0.90 kg/m² (01.8 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:08

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: J402

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.16 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.09 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

45.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

46.0 kWh/m²

Fail

Excess energy = 0.83 kg/m² (01.8 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

-

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
-----------------------------------	--------	----

Based on:

Overshading:	Average or unknown
Windows facing: East	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:08

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.44m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: K107

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

14.19 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

13.85 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

27.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

30.5 kWh/m²

Fail

Excess energy = 2.63 kg/m² (09.4 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

Floor

(no floor)

Roof

(no roof)

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	3.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:07

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 72.31m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: K110

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

15.8 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.88 kg/m²

Fail

Excess emissions = 0.08 kg/m² (0.5 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

38.5 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

39.9 kWh/m²

Fail

Excess energy = 1.41 kg/m² (03.7 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

(no roof)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Windows facing: West	2.25m ²
Windows facing: West	5.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:07

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 71.44m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: K207

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.57 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

17.50 kg/m²

Fail

Excess emissions = 0.93 kg/m² (5.6 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

40.3 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

45.2 kWh/m²

Fail

Excess energy = 4.90 kg/m² (12.2 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.33 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	4.5m ²
Ventilation rate:	3.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:06

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 72.31m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: K210

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

18.06 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.24 kg/m²

Fail

Excess emissions = 1.18 kg/m² (6.5 %)

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

50.1 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

53.2 kWh/m²

Fail

Excess energy = 3.14 kg/m² (06.3 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.19 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

Openings

1.35 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

N/A

Regulations Compliance Report

6 Controls

Space heating controls	Charging system linked to use of community heating, programmer and TRVs	OK
Hot water controls:	No cylinder thermostat	
	No cylinder	

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: South	5.5m ²
Windows facing: South	2.25m ²
Windows facing: West	2.25m ²
Windows facing: West	5.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:06

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 86.03m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: L003

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.97 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

16.75 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

47.0 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

46.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.15 (max. 0.30)

0.15 (max. 0.70)

Party wall

0.00 (max. 0.20)

-

Floor

0.12 (max. 0.25)

0.12 (max. 0.70)

Roof

(no roof)

Openings

1.40 (max. 2.00)

1.40 (max. 3.30)

OK

OK

OK

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown	
Windows facing: East	4.5m ²	
Windows facing: East	2.25m ²	
Windows facing: West	4.5m ²	
Ventilation rate:	3.00	

10 Key features

Air permeability	3.0 m ³ /m ² h	
Party Walls U-value	0 W/m ² K	
Floors U-value	0.12 W/m ² K	
Community heating, heat from boilers – mains gas		

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Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:05

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 69.89m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: M102

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

14.55 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

13.47 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

31.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

29.6 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.17 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
Based on:		
Overshading:	Average or unknown	
Windows facing: East	13.5m ²	
Ventilation rate:	4.00	

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:05

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: M304

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

16.89 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

15.74 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

33.4 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

32.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

(no roof)

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:05

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 69.89m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: M402

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.19 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

18.90 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

54.9 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

52.4 kWh/m²

OK

2 Fabric U-values

Element

Average

Highest

External wall

0.16 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.34 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.47	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: East	13.5m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT

Regulations Compliance Report

Approved Document L1A, 2013 Edition, England assessed by Stroma FSAP 2012 program, Version: 1.0.5.60
Printed on 09 November 2023 at 10:19:04

Project Information:

Assessed By: ()

Building Type: Flat

Dwelling Details:

NEW DWELLING DESIGN STAGE

Total Floor Area: 49.86m²

Site Reference : Forbury Example Gas Baseline

Plot Reference: M404

Address :

Client Details:

Name:

Address :

This report covers items included within the SAP calculations.

It is not a complete report of regulations compliance.

1a TER and DER

Fuel for main heating system: Mains gas (c)

Fuel factor: 1.00 (mains gas (c))

Target Carbon Dioxide Emission Rate (TER)

19.16 kg/m²

Dwelling Carbon Dioxide Emission Rate (DER)

19.09 kg/m²

OK

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)

45.2 kWh/m²

Dwelling Fabric Energy Efficiency (DFEE)

46.0 kWh/m²

Fail

Excess energy = 0.83 kg/m² (01.8 %)

2 Fabric U-values

Element

Average

Highest

External wall

0.18 (max. 0.30)

0.19 (max. 0.70)

OK

Party wall

0.00 (max. 0.20)

-

OK

Floor

(no floor)

-

Roof

0.12 (max. 0.20)

0.12 (max. 0.35)

OK

Openings

1.32 (max. 2.00)

1.40 (max. 3.30)

OK

2a Thermal bridging

Thermal bridging calculated using user-specified y-value of 0.15

3 Air permeability

Air permeability at 50 pascals

3.00 (design value)

Maximum

10.0

OK

4 Heating efficiency

Main Heating system:

Community heating schemes - mains gas

Secondary heating system:

None

5 Cylinder insulation

Hot water Storage:

No cylinder

6 Controls

Space heating controls

Charging system linked to use of community heating, programmer and TRVs OK

Hot water controls:

No cylinder thermostat

No cylinder

Regulations Compliance Report

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100.0%	
Minimum	75.0%	OK

8 Mechanical ventilation

Continuous supply and extract system		
Specific fan power:	0.41	
Maximum	1.5	OK
MVHR efficiency:	93%	
Minimum	70%	OK

9 Summertime temperature

Overheating risk (Severn valley):	Slight	OK
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Based on:

Overshading:	Average or unknown
Windows facing: West	9m ²
Ventilation rate:	4.00

10 Key features

Air permeability	3.0 m ³ /m ² h
Doors U-value	1 W/m ² K
Roofs U-value	0.12 W/m ² K
Party Walls U-value	0 W/m ² K
Community heating, heat from boilers – mains gas	

DRAFT