# Summary for Input Data

| | | | |
|---|---|---|---|
| Property Reference | P22691(4) Mount P | Issued on Date | 24/02/2023 |
| Assessment Reference | P22691(4) | Prop Type Ref | |
| Property | New House 4, 40-48, Mount Pleasant, Reading, RG1 2TF | | |

| | | | | | |
|---|---|---|---|---|---|
| SAP Rating | 84 B | DER | 3.92 | TER | 11.95 |
| Environmental | 97 A | % DER < TER | | | 67.20 |
| $CO_2$ Emissions (t/year) | 0.28 | DFEE | 34.83 | TFEE | 35.61 |
| Compliance Check | See BREL | % DFEE < TFEE | | | 2.20 |
| % DPER < TPER | 33.92 | DPER | 41.34 | TPER | 62.56 |

| | | | |
|---|---|---|---|
| Assessor Details | Mr. Malcolm Lisle | Assessor ID | P736-0001 |
| Client | Mount P, Jay Zaman | | |

## SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

| | |
|---|---|
| **Orientation** | South |
| **Property Tenture** | ND |
| **Transaction Type** | 6 |
| **Terrain Type** | Suburban |
| **1.0 Property Type** | House, Mid-Terrace |
| **2.0 Number of Storeys** | 3 |
| **3.0 Date Built** | 2023 |
| **4.0 Sheltered Sides** | 2 |
| **5.0 Sunlight/Shade** | Average or unknown |
| **6.0 Thermal Mass Parameter** | Precise calculation |

| | |
|---|---|
| **7.0 Electricity Tariff** | Standard |
| Smart electricity meter fitted | No |
| Smart gas meter fitted | No |

**7.0 Measurements**

| | Heat Loss Perimeter | Internal Floor Area | Average Storey Height |
|---|---|---|---|
| **Ground floor:** | 15.80 m | 29.56 m² | 2.50 m |
| **1st Storey:** | 15.80 m | 31.08 m² | 2.80 m |
| **2nd Storey:** | 12.20 m | 17.76 m² | 2.90 m |

**8.0 Living Area** 27.56 m²

**9.0 External Walls**

| Description | Type | Construction | U-Value (W/m²K) | Kappa (kJ/m²K) | Gross Area(m²) | Nett Area (m²) | Shelter Res | Shelter | Openings | Area Calculation Type |
|---|---|---|---|---|---|---|---|---|---|---|
| External Wall | Timber Frame | Timber framed wall (one layer of plasterboard) | 0.15 | 9.00 | 62.68 | 42.31 | 0.00 | None | 20.37 | Enter Gross Area |

**9.1 Party Walls**

| Description | Type | Construction | U-Value (W/m²K) | Kappa (kJ/m²K) | Area (m²) | Shelter Res | Shelter |
|---|---|---|---|---|---|---|---|
| Party Wall 1 | Filled Cavity with Edge Sealing | Single plasterboard on both sides, dense cellular blocks, cavity | 0.00 | 70.00 | 108.24 | | None |

**9.2 Internal Walls**

| Description | Construction | Kappa (kJ/m²K) | Area (m²) |
|---|---|---|---|
| Internal Walls - Timber | Plasterboard on timber frame | 9.00 | 105.30 |

**10.0 External Roofs**

| Description | Type | Construction | U-Value (W/m²K) | Kappa (kJ/m²K) | Gross Area(m²) | Nett Area (m²) | Shelter Code | Shelter Factor | Calculation Type | Openings |
|---|---|---|---|---|---|---|---|---|---|---|
| External Roof - Sloping | External Slope Roof | Plasterboard, insulated slope | 0.15 | 9.00 | 23.18 | 4.06 | None | 0.00 | Enter Gross Area | 4.06 |
| External Roof - Flat Roof | External Flat Roof | Plasterboard, insulated flat roof | 0.15 | 9.00 | 13.32 | 0.00 | None | 0.00 | Enter Gross Area | 0.00 |

**10.2 Internal Ceilings**

| Description | Storey | Construction | Area (m²) |
|---|---|---|---|
| Internal Ceiling - G Floor | Lowest occupied | Plasterboard ceiling, carpeted chipboard floor | 29.56 |
| Internal Ceiling - 1st Floor | +1 | Plasterboard ceiling, carpeted chipboard floor | 17.76 |

**11.0 Heat Loss Floors**

# Summary for Input Data

| Description | Type | Storey Index | Construction | U-Value (W/m²K) | Shelter Code | Shelter Factor | Kappa (kJ/m²K) | Area (m²) |
|---|---|---|---|---|---|---|---|---|
| Ground Floor | Ground Floor - Solid | Lowest occupied | Slab on ground, screed over insulation | 0.10 | None | 0.00 | 110.00 | 29.56 |

**11.2 Internal Floors**

| Description | Storey Index | Construction | Kappa (kJ/m²K) | Area (m²) |
|---|---|---|---|---|
| Internal Floor - 1st Floor | | Plasterboard ceiling, carpeted chipboard floor | 9.00 | 29.56 |
| Internal Floor - 2nd Floor | | Plasterboard ceiling, carpeted chipboard floor | 9.00 | 17.76 |

**12.0 Opening Types**

| Description | Data Source | Type | Glazing | Glazing Gap | Filling Type | G-value | Frame Type | Frame Factor | U Value (W/m²K) |
|---|---|---|---|---|---|---|---|---|---|
| Windows/Doors | Manufacturer | Window | Double Low-E Soft 0.05 | | | 0.63 | | 0.70 | 1.20 |
| Rooflights | Manufacturer | Roof Window | Double Low-E Soft 0.05 | | | 0.63 | | 0.70 | 1.70 |

**13.0 Openings**

| Name | Opening Type | Location | Orientation | Area (m²) | Pitch |
|---|---|---|---|---|---|
| Windows | Windows/Doors | External Wall | North | 3.16 | |
| Windows | Windows/Doors | External Wall | South | 6.50 | |
| Glazed Doors | Windows/Doors | External Wall | North | 4.32 | |
| Glazed Doors | Windows/Doors | External Wall | South | 6.39 | |
| Rooflights | Rooflights | External Roof - Sloping | East | 4.06 | 40 |

| | | |
|---|---|---|
| **14.0 Conservatory** | None | |
| **15.0 Draught Proofing** | 100 | % |
| **16.0 Draught Lobby** | No | |

| | | |
|---|---|---|
| **17.0 Thermal Bridging** | Calculate Bridges | |

**17.1 List of Bridges**

| Bridge Type | Source Type | Length | Psi | Adjusted Reference: | Imported |
|---|---|---|---|---|---|
| E1 Steel lintel with perforated steel base plate | Independently assessed | 10.40 | 0.06 | 0.06 | No |
| E3 Sill | Independently assessed | 5.90 | 0.04 | 0.04 | No |
| E4 Jamb | Independently assessed | 37.60 | 0.05 | 0.05 | No |
| E5 Ground floor (normal) | Independently assessed | 8.20 | 0.06 | 0.06 | No |
| E6 Intermediate floor within a dwelling | Independently assessed | 14.80 | 0.00 | 0.00 | No |
| E13 Gable (insulation at rafter level) | Independently assessed | 9.60 | 0.07 | 0.07 | No |
| E15 Flat roof with parapet | Table K1 - Default | 3.70 | 0.30 | 0.30 | No |
| E16 Corner (normal) | Independently assessed | 2.50 | 0.04 | 0.04 | No |
| E18 Party wall between dwellings | Independently assessed | 2.50 | 0.04 | 0.04 | No |
| E25 Staggered party wall between dwellings | Independently assessed | 29.20 | 0.04 | 0.04 | No |
| P1 Party wall - Ground floor | Independently assessed | 15.20 | 0.05 | 0.05 | No |
| P2 Party wall - Intermediate floor within a dwelling | Table K1 - Default | 26.40 | 0.00 | 0.00 | No |
| P4 Party wall - Roof (insulation at ceiling level) | Independently assessed | 6.60 | 0.08 | 0.08 | No |
| P5 Party wall - Roof (insulation at rafter level) | Independently assessed | 9.60 | 0.07 | 0.07 | No |
| R1 Head of roof window | Table K1 - Default | 3.10 | 0.24 | 0.24 | No |
| R2 Sill of roof window | Table K1 - Default | 3.10 | 0.24 | 0.24 | No |
| R3 Jamb of roof window | Table K1 - Default | 4.80 | 0.24 | 0.24 | No |
| R4 Ridge (vaulted ceiling) | Table K1 - Default | 4.80 | 0.12 | 0.12 | No |
| E17 Corner (inverted – internal area greater than external area) | Independently assessed | 2.50 | -0.05 | -0.05 | No |

| | | |
|---|---|---|
| Y-value | 0.09 | W/m²K |

| | | |
|---|---|---|
| **18.0 Pressure Testing** | Yes | |
| Designed $AP_{50}$ | 4.00 | m³/(h.m²) @ 50 Pa |
| Test Method | Blower Door | |

**19.0 Mechanical Ventilation**

**Mechanical Ventilation**

| | |
|---|---|
| Mechanical Ventilation System Present | No |

**20.0 Fans, Open Fireplaces, Flues**

| | |
|---|---|
| **21.0 Fixed Cooling System** | No |

**22.0 Lighting**

| | |
|---|---|
| No Fixed Lighting | No |

| Name | Efficacy | Power | Capacity | Count |
|---|---|---|---|---|
| Lighting 1 | 91.67 | 12 | 1100 | 16 |

| | | |
|---|---|---|
| **24.0 Main Heating 1** | Database | |
| Description | Heat Pump | |
| Percentage of Heat | 100.00 | % |
| Database Ref. No. | 104634 | |
| Fuel Type | Electricity | |

| | | |
|---|---|---|
| In Winter | 0.00 | |
| In Summer | 0.00 | |
| Model Name | Ecodan 6.0 kW | |
| Manufacturer | Mitsubishi Electric Europe B.V. | |
| System Type | Heat Pump | |
| Controls SAP Code | 2207 | |
| Is MHS Pumped | Pump in heated space | |
| Heating Pump Age | 2013 or later | |
| Heat Emitter | Underfloor | |
| Underfloor Heating | Yes - Pipes in thin screed | |
| Flow Temperature | Enter value | |
| Flow Temperature Value | 35.00 | |
| **25.0 Main Heating 2** | None | |
| **26.0 Heat Networks** | None | |
| **28.0 Water Heating** | | |
| Water Heating | Main Heating 1 | |
| SAP Code | 901 | |
| Flue Gas Heat Recovery System | No | |
| Waste Water Heat Recovery Instantaneous System 1 | No | |
| Waste Water Heat Recovery Instantaneous System 2 | No | |
| Waste Water Heat Recovery Storage System | No | |
| Solar Panel | No | |
| Water use <= 125 litres/person/day | No | |
| Cold Water Source | From mains | |
| Bath Count | 1 | |
| Immersion Only Heating Hot Water | No | |
| **28.3 Waste Water Heat Recovery System** | | |
| **29.0 Hot Water Cylinder** | Hot Water Cylinder | |
| Cylinder Stat | Yes | |
| Cylinder In Heated Space | Yes | |
| Independent Time Control | Yes | |
| Insulation Type | Measured Loss | |
| Cylinder Volume | 150.00 | L |
| Loss | 1.86 | kWh/day |
| Pipes insulation | Fully insulated primary pipework | |
| In Airing Cupboard | No | |
| **31.0 Thermal Store** | None | |

**Recommendations**

**Lower cost measures**

**None**

**Further measures to achieve even higher standards**

| | Typical Cost | Typical savings per year | Ratings after improvement SAP rating | Ratings after improvement Environmental Impact |
|---|---|---|---|---|
| | £4,000 - £6,000 | £58 | B 86 | A 97 |
| | £3,500 - £5,500 | £157 | A 92 | A 98 |
| | | | 0 | 0 |