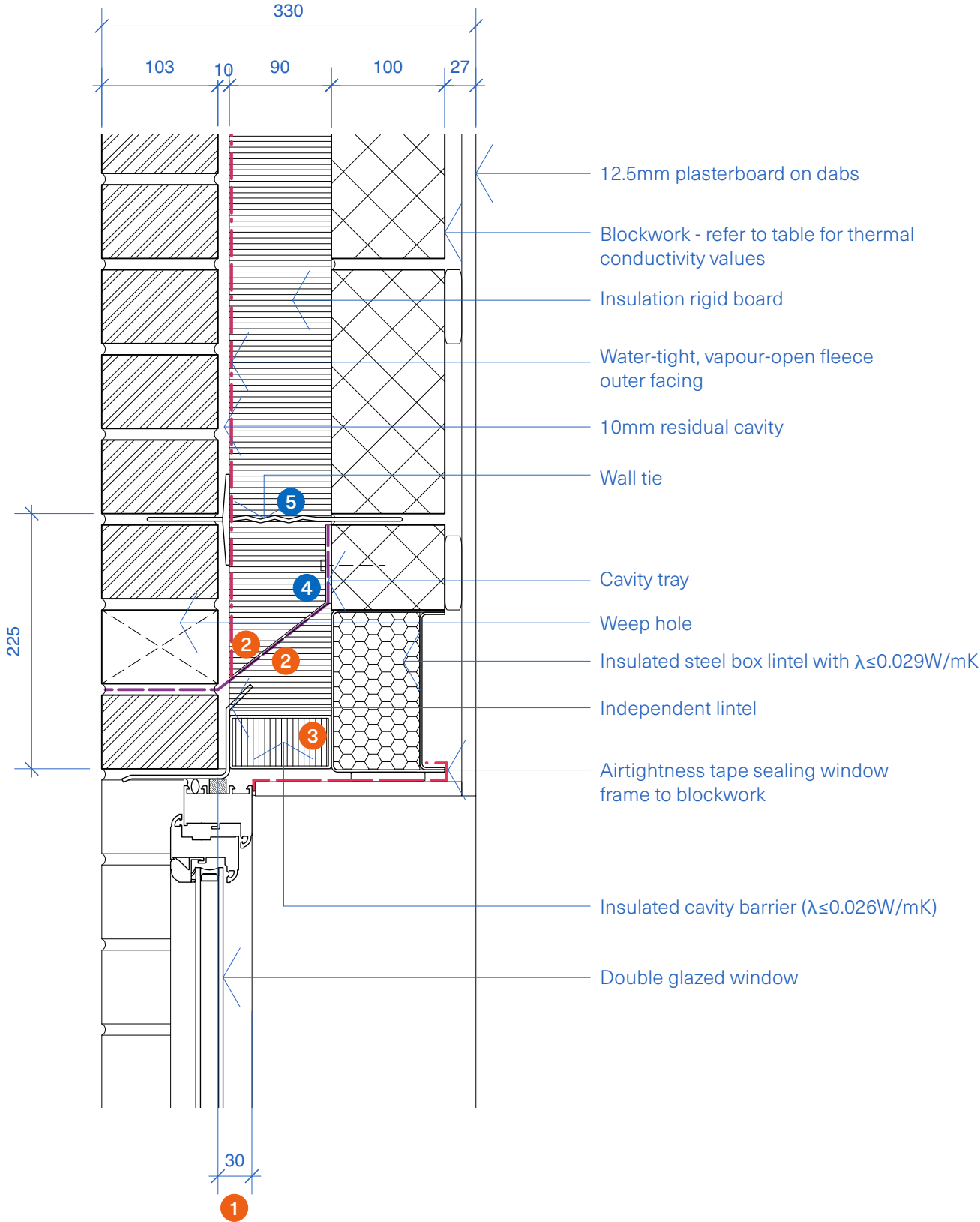


Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

		Internal leaf block thermal conductivity (W/mK)					
Insulation thermal conductivity (W/mK)							
		0.11	0.15	0.19	0.28	0.6	1.33
0.019		0.026	0.024	0.023	0.023	0.022	0.021
0.022		0.026	0.024	0.023	0.022	0.020	0.020

f-values: 0.930 - 0.937 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1 Minimum 30mm overlap of window frame and insulated wall cavity.
- 2 Ensure insulation rigid board is cut and fitted around the angle of the cavity tray.
- 3 Insulated cavity barrier with $\lambda \leq 0.026 \text{ W/mK}$ fixed in accordance with manufacturers guidelines. If fixing spikes are used, they should be installed at the required centres. For compression fit cavity barriers, use the correct size for a compressive fit in the cavity.

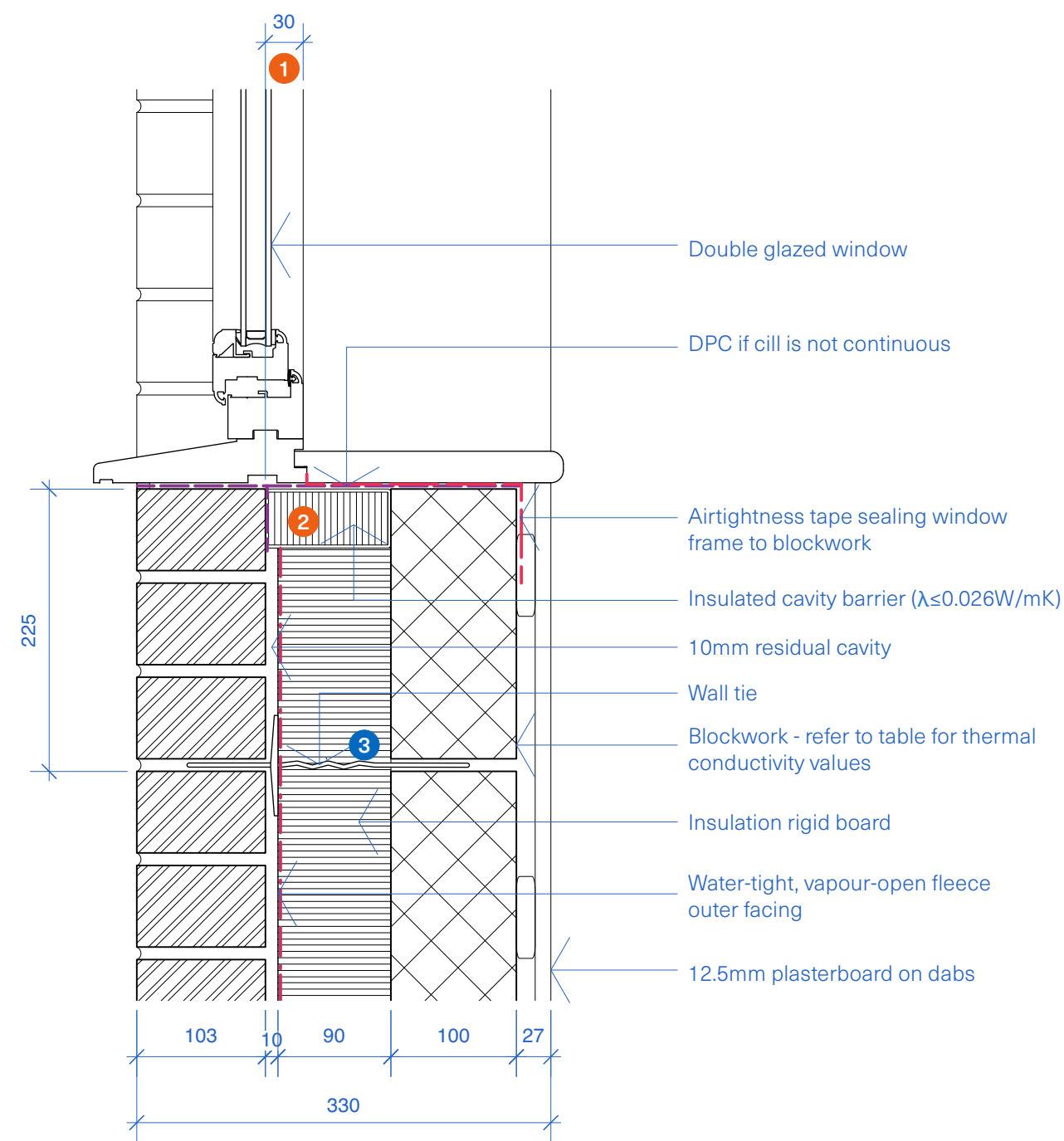
Construction Notes

- 4 If using galvanised lintel cavity tray is required. Secure the cavity tray DPC to the face of the blockwork using a compatible double-sided adhesive tape. Do not create a slip plane by continuing the DPC into the same mortar joint as the wall tie.
- 5 Wall tie: 225mm maximum distance from opening. No greater than 450mm vertical spacing. 450mm horizontal centres for first row of wall ties above and below opening. Only use insulation retaining clips that are compatible with the wall tie.

General Notes

The cavity must be closed at the top of the wall and openings for the provisions of Diagram 5.3 ADBv1 to apply.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

		Internal leaf block thermal conductivity (W/mK)					
Insulation thermal conductivity (W/mK)		0.11	0.15	0.19	0.28	0.6	1.33
		0.019	0.021	0.021	0.020	0.020	0.020
	0.022	0.021	0.020	0.020	0.019	0.018	0.018

f-values: 0.885 - 0.898 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1 Minimum 30mm overlap of window frame and insulated wall cavity.
- 2 Insulated cavity barrier with $\lambda \leq 0.026 \text{ W/mK}$ fixed in accordance with manufacturers guidelines. If fixing spikes are used, they should be installed at the required centres. For compression fit cavity barriers, use the correct size for a compressive fit in the cavity.

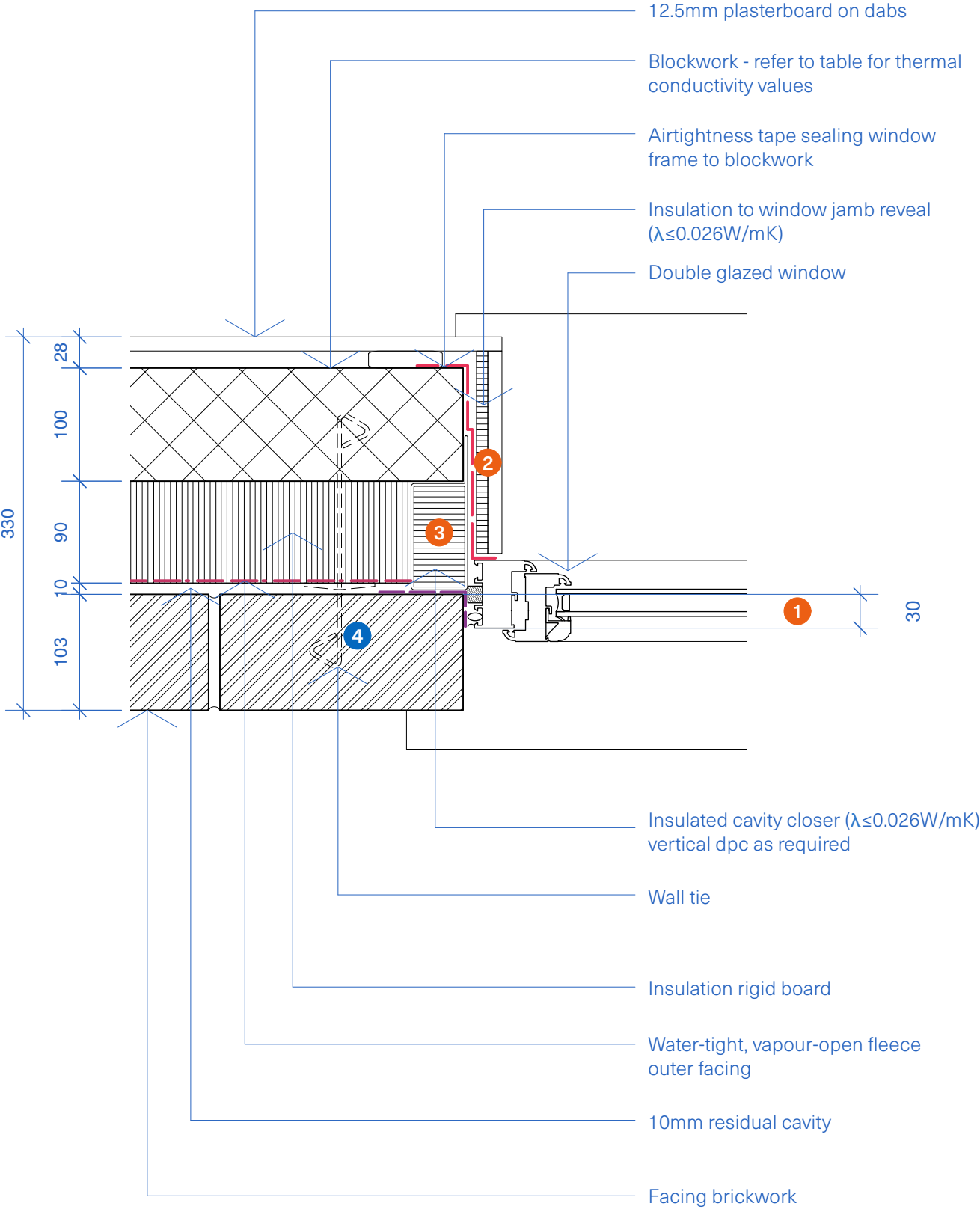
Construction Notes

- 3 Wall tie: 225mm maximum distance from opening. No greater than 450mm vertical spacing. 450mm horizontal centres for first row of wall ties above and below opening. Only use insulation retaining clips that are compatible with the wall tie.

General Notes

The cavity must be closed at the top of the wall and openings for the provisions of Diagram 5.3 ADBv1 to apply.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

Insulation thermal conductivity (W/mK)	Internal leaf block thermal conductivity (W/mK)					
	0.11	0.15	0.19	0.28	0.6	1.33
0.019	0.017	0.016	0.016	0.016	0.015	0.016
0.022	0.016	0.015	0.015	0.014	0.014	0.014

f-values: 0.934 - 0.943 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1 Minimum 30mm overlap of window frame and insulated wall cavity.
- 2 10mm insulation with $\lambda \leq 0.026 \text{ W/mK}$ to window jamb reveal.
- 3 Insulated cavity barrier with $\lambda \leq 0.026 \text{ W/mK}$ fixed in accordance with manufacturers guidelines. If fixing spikes are used, they should be installed at the required centres. For compression fit cavity barriers, use the correct size for a compressive fit in the cavity.

Construction Notes

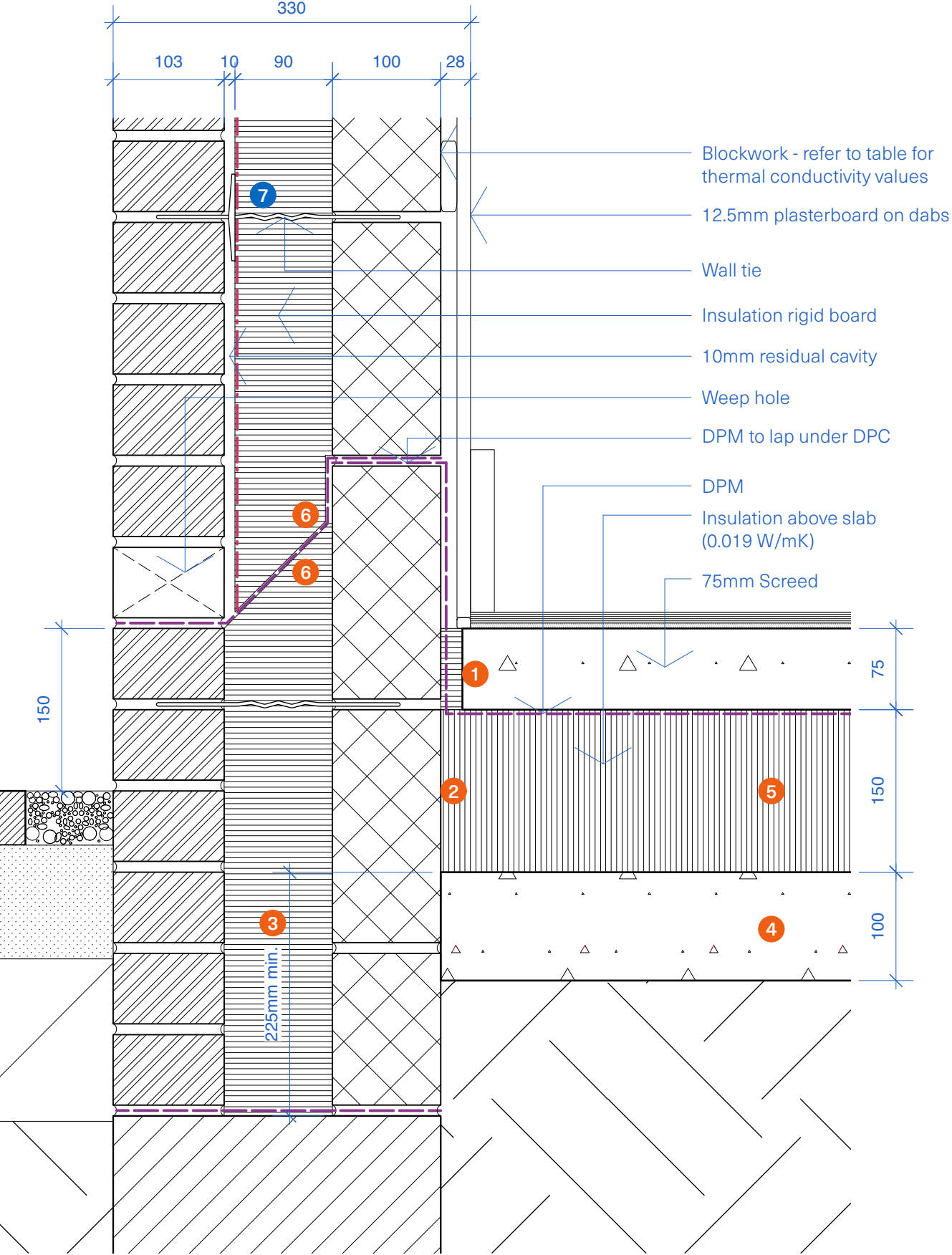
- 4 Wall tie: 225mm maximum distance from opening. No greater than 450mm vertical spacing. 450mm horizontal centres for first row of wall ties above and below opening. Only use insulation retaining clips that are compatible with the wall tie.

General Notes

The cavity must be closed at the top of the wall and openings for the provisions of Diagram 5.3 ADBv1 to apply.



Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

		Internal leaf block thermal conductivity (W/mK)					
Insulation thermal conductivity (W/mK)		0.11	0.15	0.19	0.28	0.6	1.33
0.019		0.041	0.050	0.058	0.062	0.101	0.166
0.022		0.040	0.049	0.057	0.060	0.099	0.165

f-values: 0.888 - 0.951 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1 Minimum 20mm perimeter insulation with $\lambda \leq 0.022 \text{ W/mK}$.
- 2 Ensure the floor insulation is tightly butted against the external wall.
- 3 Continue full fill rigid cavity insulation at least 225mm below top of slab. Insulation below DPC to provide thermal resistance equal to or better than main wall insulation.
- 4 100mm Ground bearing slab.
- 5 150mm insulation (0.019 W/mK) above slab.
- 6 Ensure insulation is cut and fitted around the angle of the cavity tray. Insulation to be secured firmly against the inner leaf of the cavity wall.

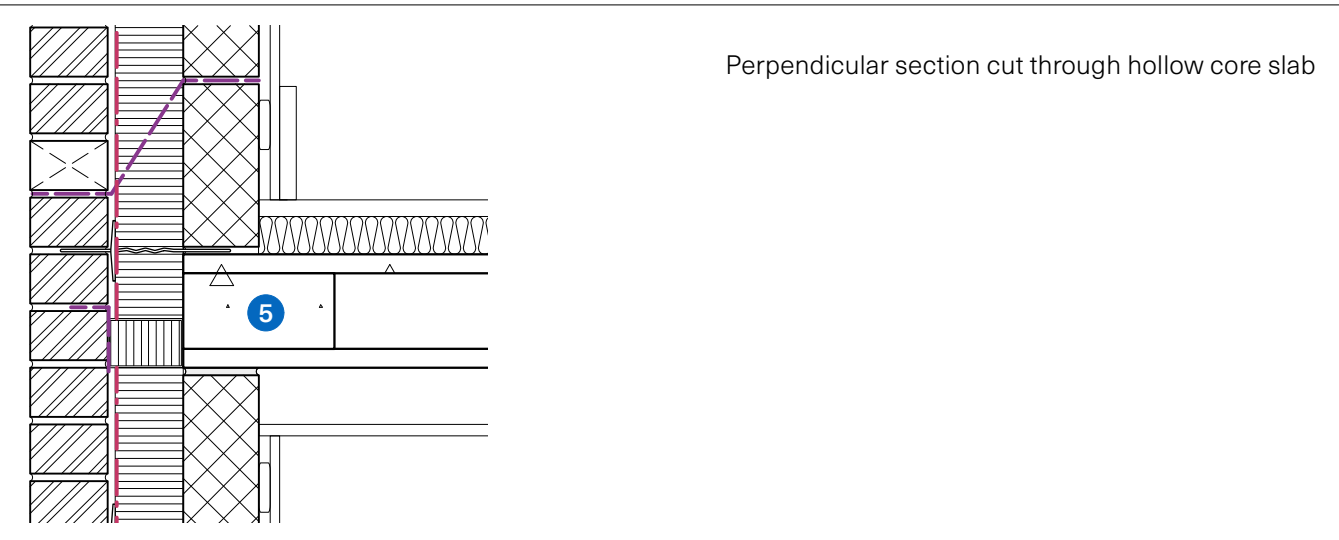
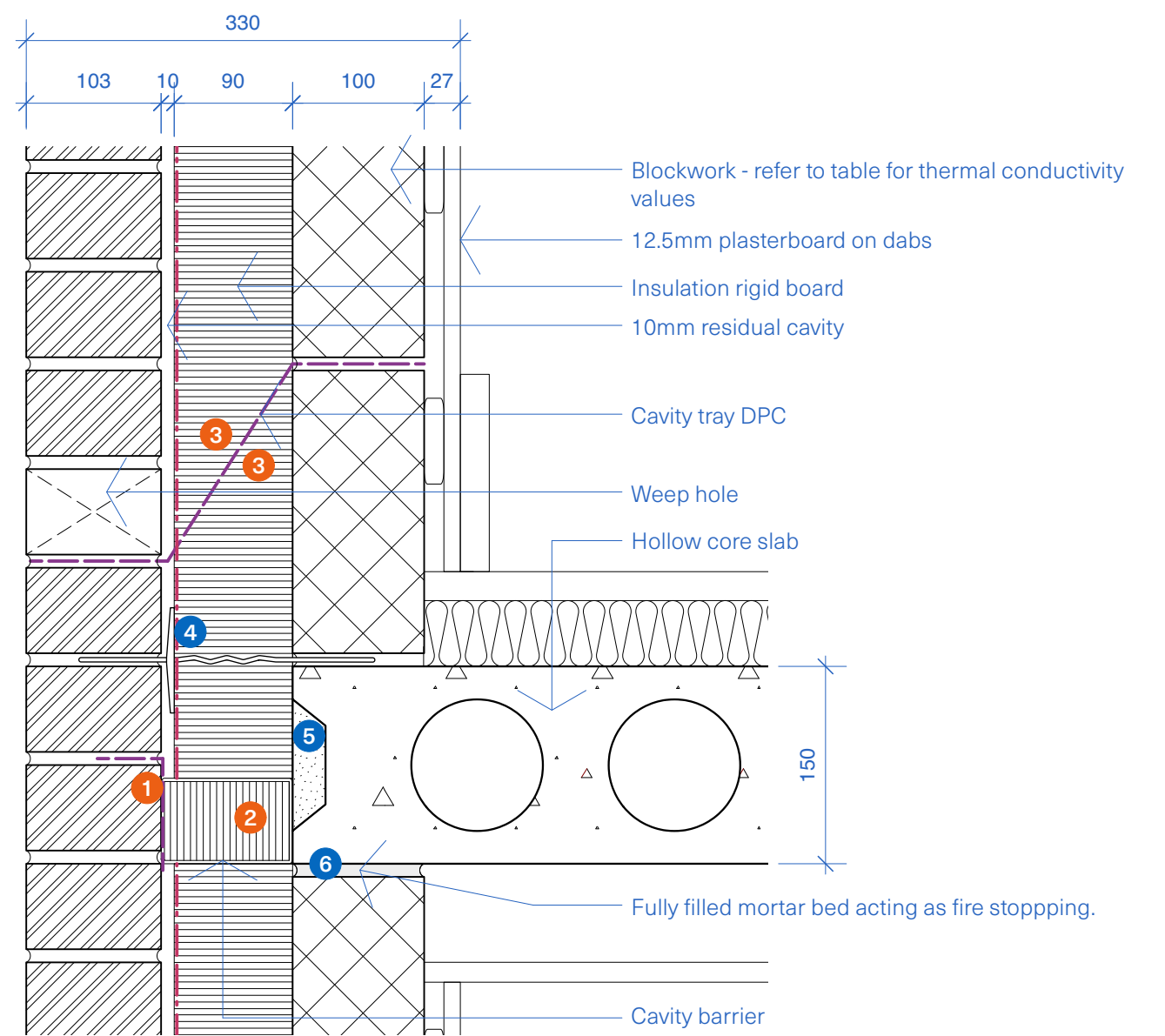
Construction Notes

- 7 Wall tie: No greater than 450mm vertical spacing. Only use insulation retaining clips that are compatible with the wall tie.

General Notes

Rigid insulation below DPC to provide structural stability and stop water ingress.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

	Internal leaf block thermal conductivity (W/mK)					
Insulation thermal conductivity (W/mK)	0.11	0.15	0.19	0.28	0.6	1.33
0.019	0.043	0.043	0.043	0.044	0.044	0.044
0.022	0.045	0.045	0.045	0.046	0.046	0.047

f-values: 0.950 - 0.970 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1
- Dependent of the type of cavity barrier used, a DPC may need to be provided to prevent the barrier absorbing moisture.
- 2
- Horizontal/vertical cavity barriers need to be fixed in accordance with manufacturers guidelines. If fixing spikes are used, they should be installed at the required centres. For compression fit cavity barriers, use the correct size for a compressive fit in the cavity.
- 3
- Ensure insulation is fitted around the angle of the cavity tray.

Construction Notes

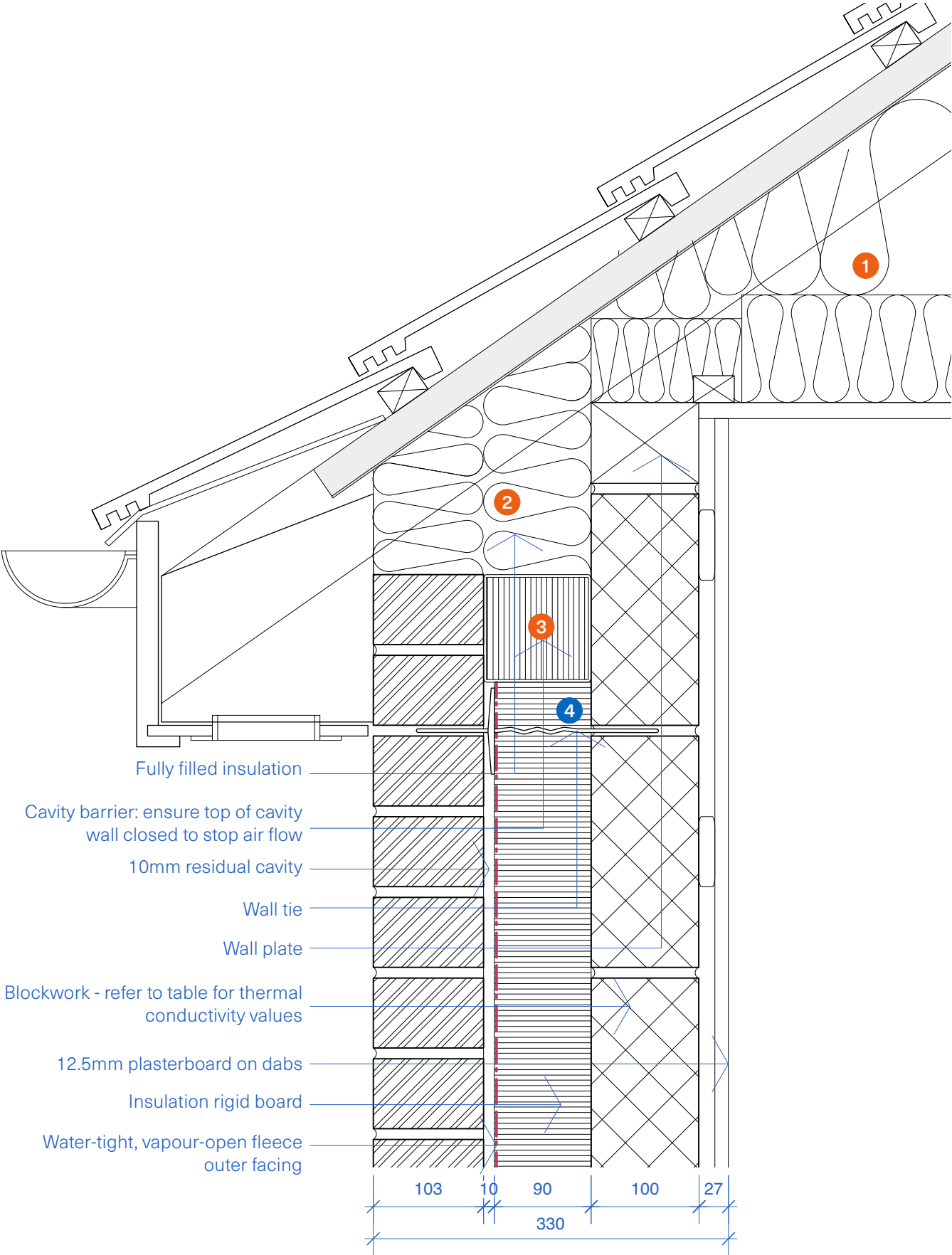
- 4
- Wall tie: No greater than 450mm vertical spacing. Only use insulation retaining clips that are compatible with the wall tie.
- 5
- For the cavity barrier to be installed, the hollowcore slab rebate needs to be filled-in post slab installation so that a cavity barrier can continuously fix to the edge of the slab. Ensure that any holes in the hollowcore slab, exposed in the cavity, are filled-in post slab installation to maintain an enclosed cavity to stop the spread of fire and smoke.
- 6
- Use fire-stopping and sealing system that is appropriate to the particular material. Refer to ADBv1 Section 9. Ensure the inner-leaf top mortar joint under the floor slab is a fully filled mortar joint to act as a fire stop.

General Notes

The cavity must be closed at the top of the wall and openings for the provisions of Diagram 5.3 ADBv1 to apply.

Maintain clear separation of components to prevent congestion within the cavity and mortar joints.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

Insulation thermal conductivity (W/mK)	Internal leaf block thermal conductivity (W/mK)					
	0.11	0.15	0.19	0.28	0.6	1.33
0.019	0.056	0.060	0.063	0.067	0.073	0.078
0.022	0.052	0.056	0.059	0.062	0.068	0.072

f-values: 0.919 - 0.933 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1 400mm insulation quilt (0.044 W/mK), minimum roof pitch 40°.
- 2 Ensure continuity of insulation between the loft and external wall.
- 3 Horizontal/vertical cavity barriers need to be fixed in accordance with manufacturers guidelines. If fixing spikes are used, they should be installed at the required centres. For compression fit cavity barriers, use the correct size for a compressive fit in the cavity.

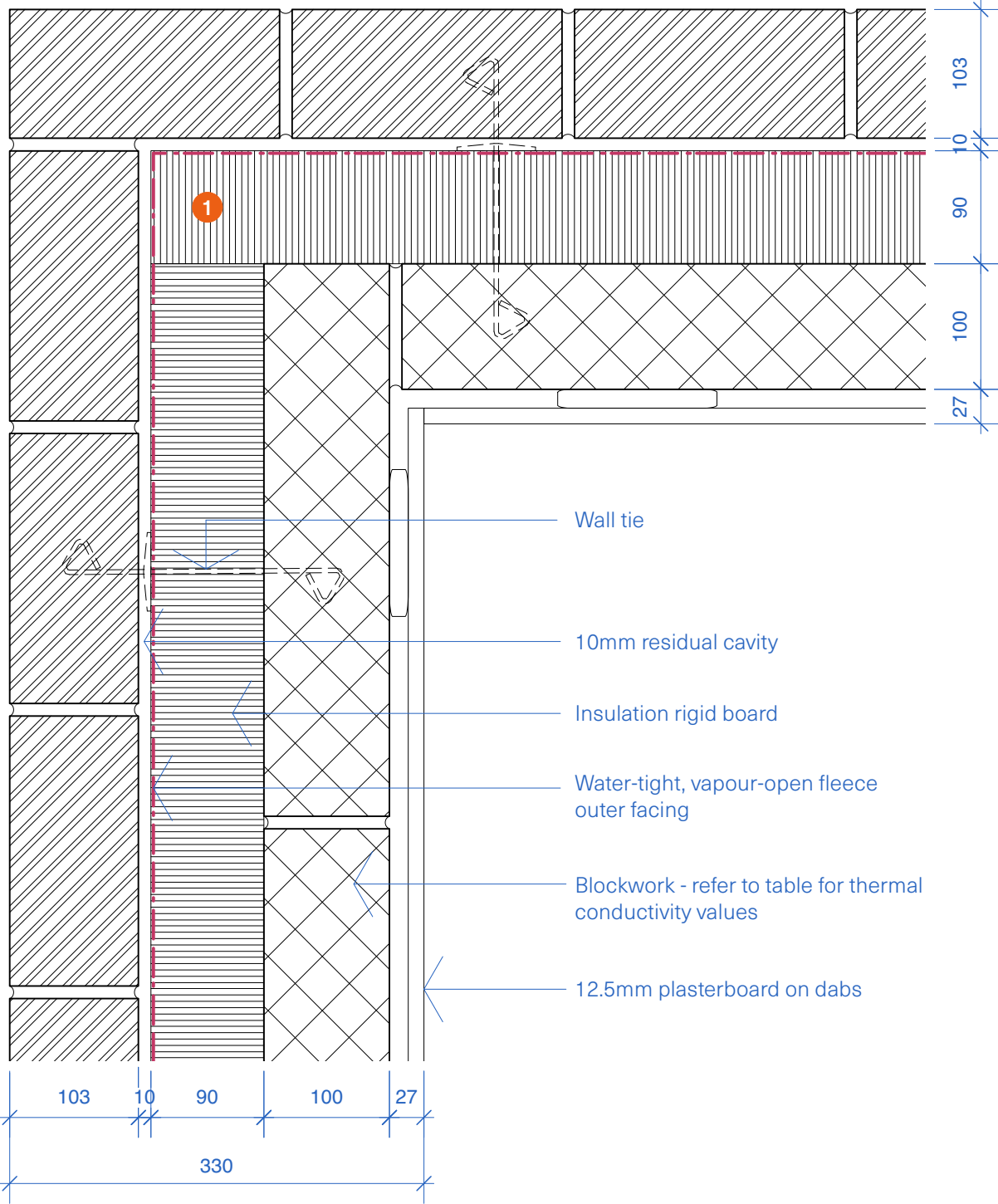
Construction Notes

- 4 Wall tie: 225mm maximum distance from opening. No greater than 450mm spacing. Only use insulation retaining clips that are compatible with the wall tie.

General Notes

The cavity must be closed at the top of the wall for the provisions of Diagram 5.3 ADBv1 to apply.
Maintain clear separation of components to prevent congestion within the cavity and mortar joints.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

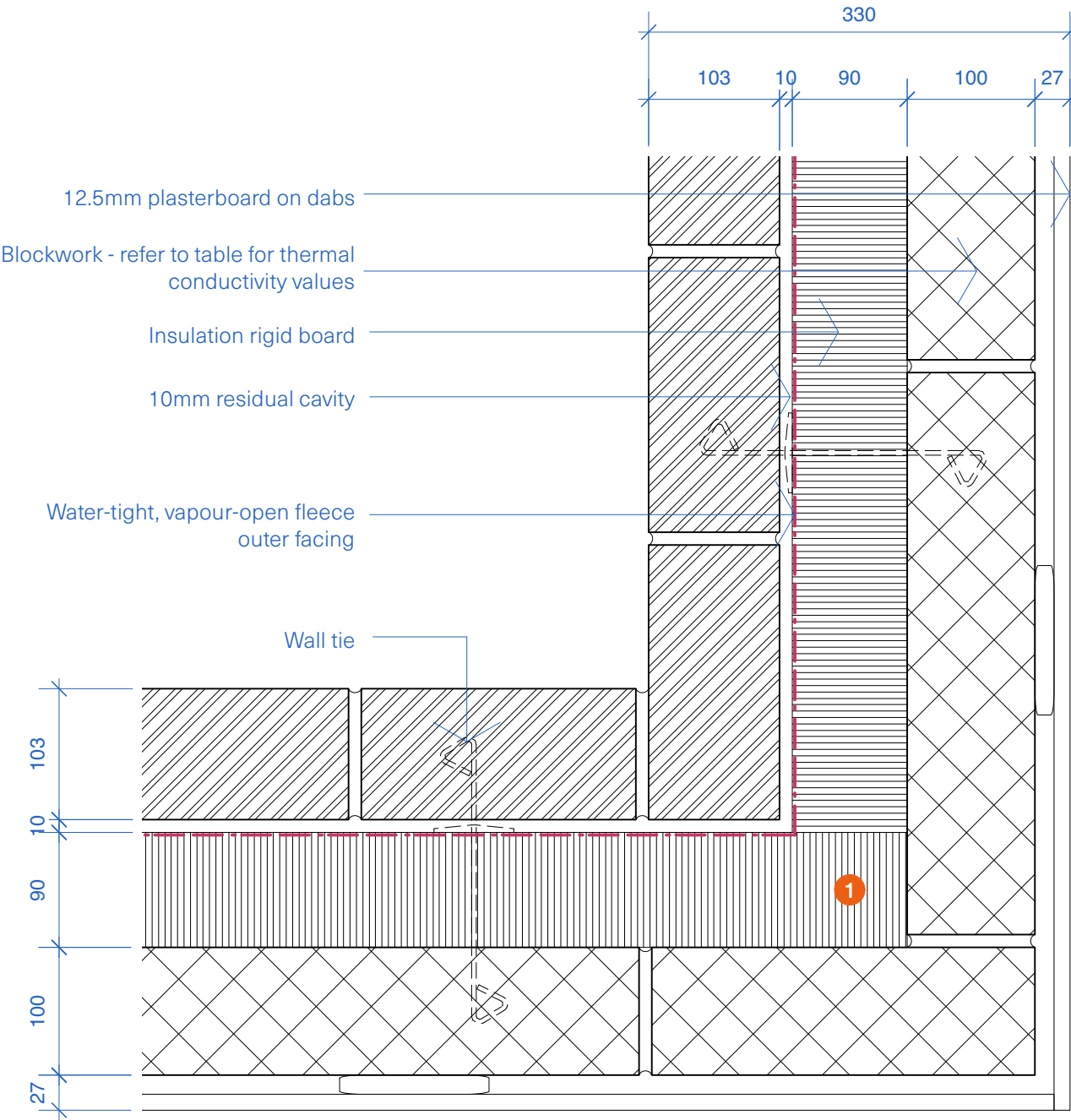
Insulation thermal conductivity (W/mK)	Internal leaf block thermal conductivity (W/mK)					
	0.11	0.15	0.19	0.28	0.6	1.33
0.019	0.033	0.035	0.037	0.040	0.044	0.047
0.022	0.035	0.038	0.041	0.044	0.049	0.052

f-values: 0.904 - 0.952 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1 Ensure continuity of insulation at the corner.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

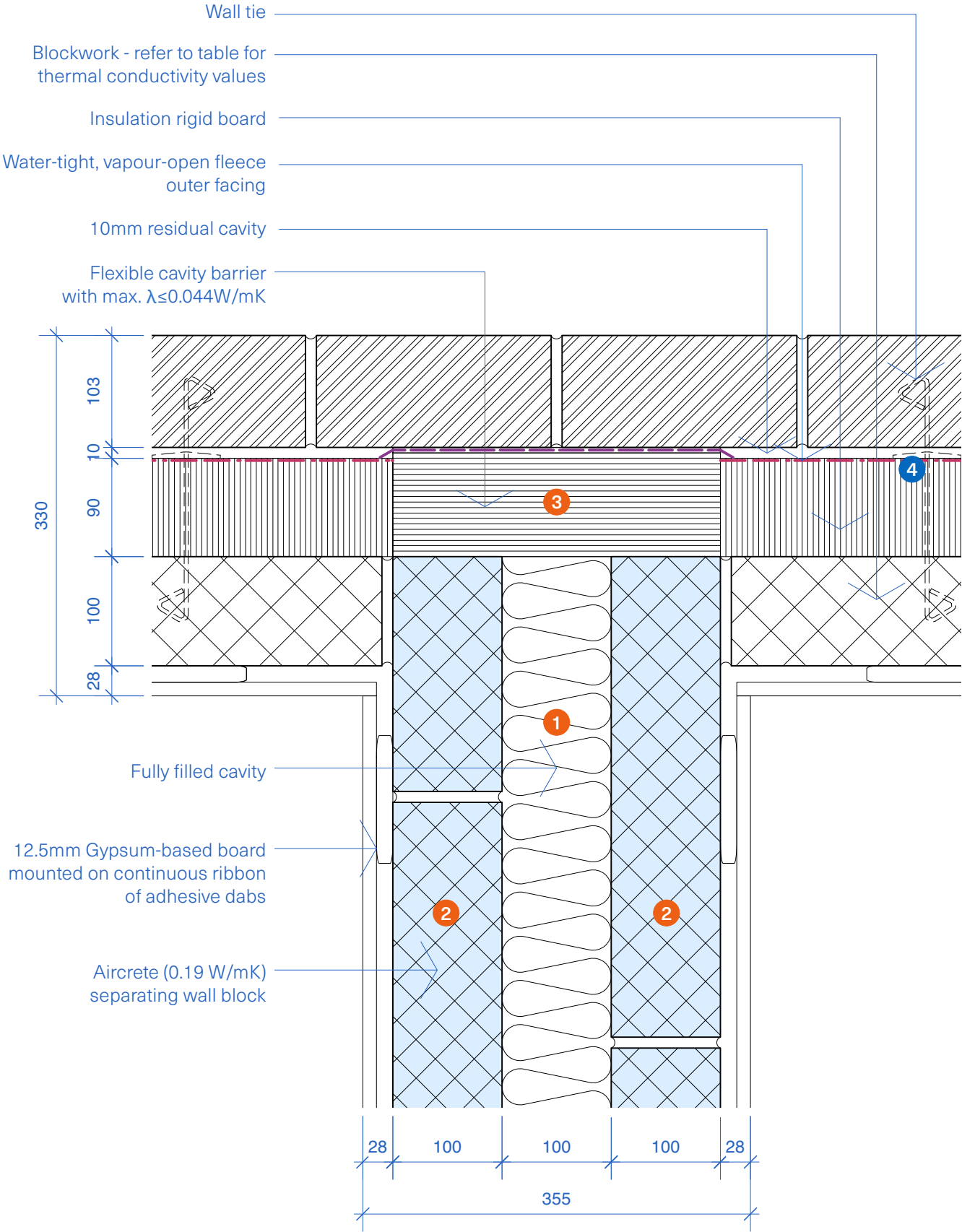
		Internal leaf block thermal conductivity (W/mK)					
Insulation thermal conductivity (W/mK)		0.11	0.15	0.19	0.28	0.6	1.33
0.019		-0.064	-0.066	-0.068	-0.070	-0.073	-0.073
0.022		-0.071	-0.074	-0.076	-0.079	-0.083	-0.084

f-values: 0.960 - 0.981 (values above 0.75 indicate low risk of condensation and mould)

Ψ (Psi) value Thermal Compliance Notes

- 1
- Ensure continuity of insulation at the corner.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

Insulation thermal conductivity (W/mK)	Internal leaf block thermal conductivity (W/mK)					
	0.11	0.15	0.19	0.28	0.6	1.33
0.019	0.042	0.042	0.043	0.044	0.045	0.046
0.022	0.042	0.042	0.043	0.044	0.045	0.046

f-values: 0.939 - 0.958 (values above 0.75 indicate low risk of condensation and mould)
The above Psi values are applicable per dwelling on either side of the party wall.

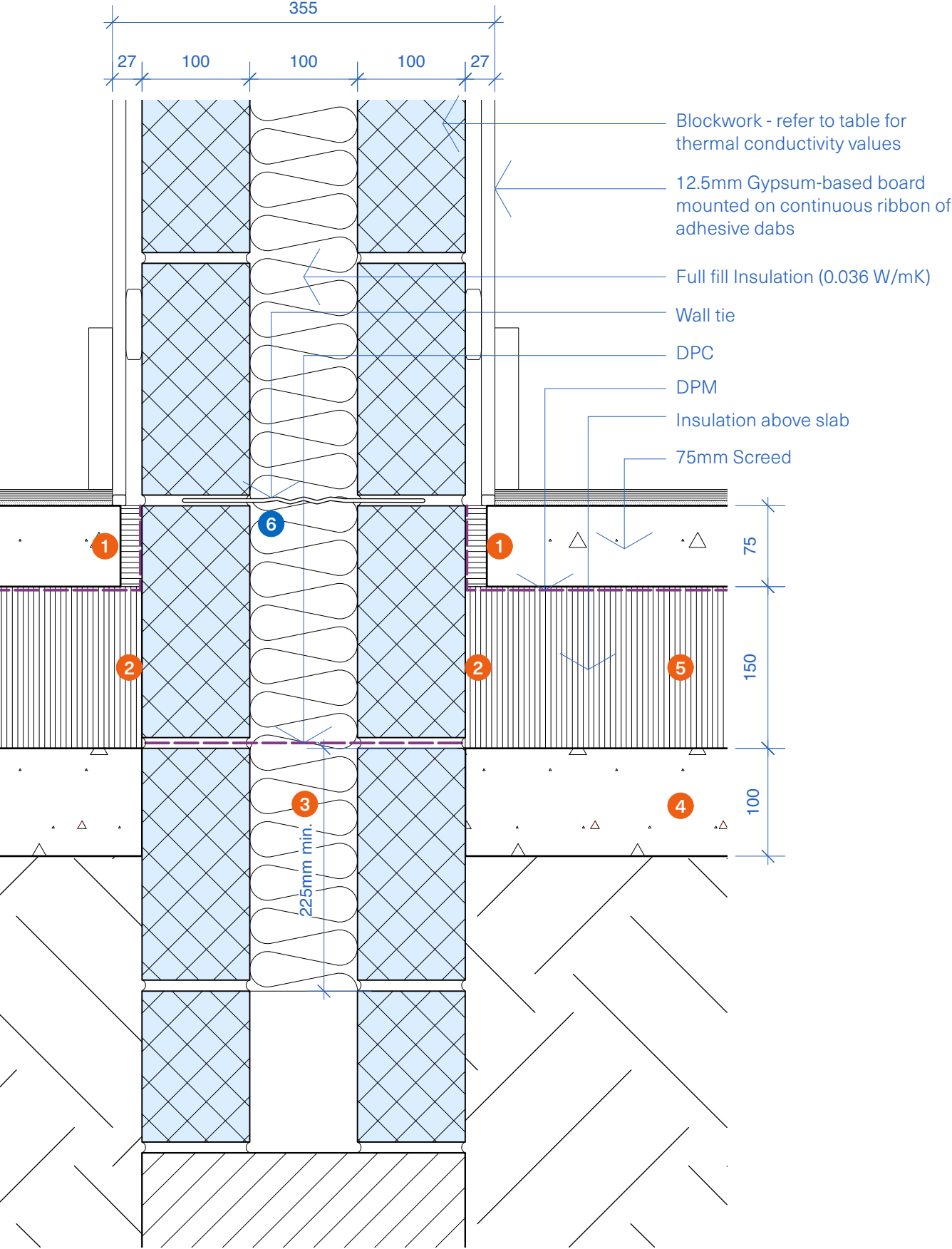
Ψ (Psi) value Thermal Compliance Notes

- 1 Fully fill the separating wall 100mm cavity with insulation (0.036 W/mK).
- 2 2 x 100mm Aircrete (0.19 W/mK) block separating wall.
- 3 Close the external wall cavity with flexible cavity barrier with max. $\lambda \leq 0.044 \text{ W/mK}$.
Dependent on the type of cavity barrier used, a DPC should be provided to prevent the barrier absorbing moisture. Horizontal/vertical cavity barriers need to be fixed in accordance with manufacturers guidelines. If fixing spikes are used, they should be installed at the required centres. For compression fit cavity barriers, use the correct size for a compressive fit in the cavity.

Construction Notes

- 4 Type A (part E) wall ties at no more than 2.5 ties/m2 (900 x 450mm spacing).
Wall ties: no greater than 900mm horizontal spacing.

Construction Detail



Calculated Ψ (Psi) value for use in SAP Calculation

Separating Wall Block Conductivity: W/mK				
Floor Insulation Thermal Conductivity (W/mK)	0.15	0.19	0.6	1.33
0.019	0.037	0.043	0.096	0.096

f-values: 0.905 - 0.955 (values above 0.75 indicate low risk of condensation and mould)
The above Psi-values are applicable per dwelling on either side of the party wall.

Ψ (Psi) value Thermal Compliance Notes

- 1 Minimum 20mm perimeter insulation with $\lambda \leq 0.022$ W/mK.
- 2 Ensure the floor insulation is tightly butted against the separating wall.
- 3 Continue full fill cavity insulation at least 225mm below the top of slab. Insulation below DPC to provide thermal resistance equal to or better than main wall insulation.
- 4 100mm Ground bearing slab.
- 5 150mm insulation (0.019 W/mK) above slab.

Construction Notes

- 6 Type A (part E) wall ties at no more than 2.5 ties/m² (900 x 450mm spacing).
Wall ties: no greater than 900mm horizontal spacing.