

This document has been prepared to offer best practices for Retrofit Assessors, Designers, and Coordinators to help ensure loft hatches are correctly insulated and draught-proofed in Accordance with PAS2035 and current relevant building regulations, as part of a loft insulation project.

Loft Hatch Inspection

When assessing loft insulation as a potential measure, in addition to collecting all relevant data for the loft area, assessors should also pay consideration and record the following:

- Hatch type: – hinged or removable, proprietary or non-proprietary;
- Hatch insulation: – insulated as per original manufacture – type and thickness or not insulated;
- Hatch dimensions (if insulation is required);
- Draught proofing: - as per original manufacture or none
- Ladder type: - none, hinged from hatch opening (not connected to hatch) or connected to hatch;
- Provide photographic evidence of the above items and of the hatch itself.

The above evidence will enable the retrofit designer to prepare a suitable design for ensuring that the hatch is correctly insulated and draught-proofed.



Figure 1 Loft hatch insulated with foil backed PIR Board

Required level of insulation¹

The loft hatch cover shall be completely insulated, as far as practical, to at least the same U-Value degree as the rest of the roof space. As a minimum, the requirements of the current building regulations/standards shall apply.

Under current building regulations², Approved Document L1, Table 4.3, loft insulation should achieve a U value of **0.16W/m²k**.

Where a loft hatch is not already insulated, the easiest material to attach to the upper side of the hatch would be rigid insulation board, which can be cut to size to fit the hatch and cut around any fixings for ladder attachments.

Loose insulation material such as mineral wool will have to be secured in a suitable bag and attached to the upper face of the hatch – ensuring that this does not interfere with the hatch closing.

Table 1.0 below provides the typical thickness of the insulation material required to achieve the above required U Value.



Figure 2 Proprietary hatch insulated with polystyrene board and draught proofed

Table 1.0 Insulation Materials and Typical Thicknesses Required for U-Value 0.16W/m²k

Material	Thermal Conductivity (W/mK)	Minimum Insulation Thickness Required
Glass Wool	0.035 – 0.040	250mm
Rock Wool	0.034 – 0.040	250mm
PIR Board	0.021 – 0.023	150mm
Phenolic Foam	0.018 – 0.023	150mm
Polystyrene	0.029 – 0.040	200 – 250mm

Suitable methods of insulating and draught-proofing Loft hatches¹

Loft hatches should be insulated and draught-proofed in accordance with the insulation material's specifications or installation instructions. For older properties or where a non-proprietary hatch has been used, draught-proofing can be installed using systems in a manner similar to that used for external doors – ensuring that the hatch can still be opened and closed by the occupant.

Example of Rigid Insulation Board Installed on to Ladder Fixed to Loft Hatch.



Figure 3 Uninsulated hatch with fixed ladder



Figure 4 Hatch with fixed ladder with retrofit insulation and draught proofing

Ladder attached to loft hatch secured with rigid brackets

Draught proofing installed in hatch frame to seal against upper face of loft hatch

Rigid insulation board to correct thickness to achieve U-value of 0.16 W/m²K

Insulation board cut to fit around mounting brackets, hinges and support mechanisms

Note: the installer should always ensure that any relevant fire regulations are followed and that the loft hatch can still be easily closed and securely locked in place following the installation of insulation and any draught-proofing.

References

1. CITB - General Requirements and Guidance for the Installation of Cold Roof Loft Insulation, Version 2 CITB 2013
2. The Building Regulations 2010 Conservation of fuel and power, Approved Document L 2021