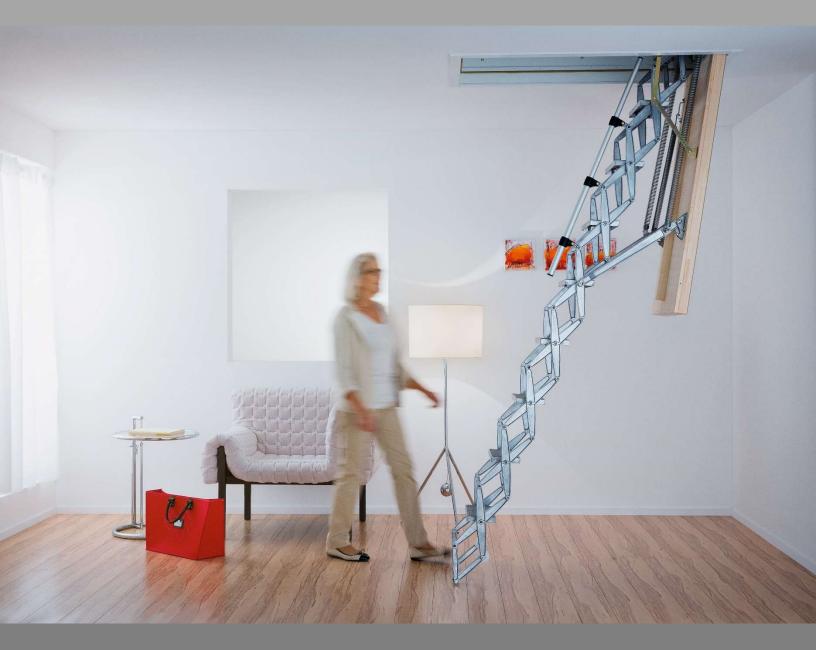


# Keeping in the Warmth



Loft Ladder thermal insulation data sheet

Insulated and properly sealed loft ladders can help you to keep in the warmth and reduce your energy costs. This data sheet provides a useful guide about to the what to look for when choosing your new loft ladder. It also includes a quick reference tool for our insulated loft ladder product range.

## **Thermal Insulation**

Thermal insulation is the reduction of heat transfer through objects of differing temperature. A well-insulated loft hatch therefore reduces the heat loss from the warm room into the cooler loft space above.

When considering insulated loft hatches and ladders, you need to pay attention to the U-value. This is a measure of how much heat is lost through the loft hatch by conduction, convection and radiation. A high U-value indicates high heat-loss. A low U-value indicates low heat-loss. As a bench-mark, a solid wall has a U-Value of approximately 2 W/m<sup>2</sup>K.

For a well-insulated loft hatch and ladder, you should really be looking for a product offering a U-value of less than  $1\,W/m^2K$ 

## Air permeability

Air permeability of loft hatches relates to the amount of air that will travel through the hatch while in its closed position. The first thing to look for is whether the loft hatch is certified with a Class 4 air permeability rating. Class 4 is the highest rating, so anything certified to this standard is recommended.



# Wooden insulated loft ladders

	Туре	Operation	U-value (heat transfer coefficient) W/m2K	Class 4 air permeability certified
Designo	3-part folding	Manual	0.60	Yes
Designo Passivhaus	3-part folding	Manual	0.29	Yes
Cadet 3	3-part folding	Manual	0.90	Yes
Cadet 2	2-part sliding	Manual	0.90	Yes
Esca 11 ISO-RC	3-part folding	Manual	1.30	Yes
ProfiLine F30/F30 Plus/F60	3-part folding	Manual	0.92	Yes





# Aluminium insulated loft ladders

	Туре	Operation	U-value (heat transfer coefficient) W/m2K	Class 4 air permeability certified
Supreme	Concertina/ Retractable	Manual or Electric	0.58	Yes
Supreme Passivhaus	Concertina/ Retractable	Manual or Electric	0.28	Yes
Supreme F30	Concertina/ Retractable	Manual or Electric	0.80	Yes
Supreme F30 Steel	Concertina/ Retractable	Manual or Electric	0.57	No
Mini	Concertina/ Retractable	Manual	0.80	Yes
MiniLine F30/F30 Plus/F60	Concertina/ Retractable	Manual	0.92	Yes



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#### WDL Insulation and sealing tape

To ensure the best possible seal around the outside of the hatch box, you can order your loft ladder from Premier Loft Ladders with WDL insulation and sealing tape. The patented WDL tape is pre-assembled to the hatch box and offers an airtight seal with the building. Made of tear-resistant material, it also provides thermal and acoustic insulation.

WDL sealing tape is fitted as standard to our Designo range of wooden loft ladders. You can also order it with many of our other loft ladders (excluding fire resistant models).



WDL insulation and sealing tape for an airtight connection between the loft ladder hatch box and the building

#### Passive House (Passivhaus) loft ladders

For the very highest standards in thermal insulation, Premier Loft Ladders offer two loft ladders designed specifically for Passive House (aka Passivhaus) projects. Offering U-values as low as 0.28 W/m<sup>2</sup>K, Passivhaus loft ladders are available as either folding wooden loft ladders (the Designo Passivhaus) or retractable aluminium stairs (Supreme Passivhaus). They feature a secondary upper cover that can be closed immediately after entering the loft. This not only helps to lock the warmth in the home or building, but also prevents moist air from flowing into the loft and condensing in the cold areas.

Visit our Passive House Applications page on our web site for further information:

www.premierloftladders.co.uk/passive-house-applications/





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