

U-Value & Thermal Insulation

The U-Value is the industry-standard measurement for heat loss. While Air Testing measures "drafts," the U-Value measures how much heat can physically soak through the solid materials of a door or hatch.

1. How to Read the Number (W/m²K)

- **The Rule:** When it comes to U-Values, **lower is always better.**
- **What it means:** The U-Value tells you the rate of heat transfer through the product. A lower number means the insulation is doing a better job of keeping the heat inside your room and the cold air in the cavity or loft.

2. Meeting Building Regulations (Part L)

- **The Standard:** UK Building Regulations (specifically "Part L") set maximum U-Value limits for new builds and renovations to ensure energy efficiency.
- **Why it matters:** Using a product with a certified U-Value ensures your project complies with the law. Our insulated ranges are engineered to meet or exceed these targets, helping your building pass inspection and reducing its overall carbon footprint.

3. High-Performance Insulation

- **What's inside:** Our insulated products are packed with high-density, professional-grade insulation (such as Mineral Wool).
- **The Benefit:** This insulation acts as a thermal barrier. It prevents "Thermal Bridging" - where heat escapes through the metal frame - ensuring the temperature in your living or working space remains constant.

4. Preventing Condensation & Mold

- **The Science:** When warm air from a room hits a cold, uninsulated surface, it creates condensation. Over time, this leads to dampness and mold growth on ceilings and walls.
- **The Solution:** By maintaining a low U-Value, the "room-side" of our panel stays warm. This eliminates the cold surface where moisture typically gathers, keeping your installation clean and dry.

5. Thermal Performance Guide

U-Value Rating	Efficiency Level	Typical Usage
1.50+	Poor	Uninsulated "budget" metal panels. High heat loss.
0.50	Standard	Basic insulated panels. Meets older building codes.
0.35	Good	Standard requirement for modern UK Building Regs.
0.32 or lower	Excellent	High-efficiency projects, schools, and modern homes.

6. Final Summary

When combining an Air Test of 0.76 with a U-Value of 0.32, you are buying one of the most thermally efficient access solutions on the market. You are stopping heat loss in two ways: by stopping the air from leaking out and by stopping the heat from soaking through the door.