

# Isover MERINO

## Mineral fibreglass insulation



Specification code: MW - EN 13162 - T2 - MU1 - AF,5

### TECHNICAL SPECIFICATION

Insulation slabs made of Isover fibreglass wool. The production is based on defibration of melt of glass and other additives and ingredients. Produced mineral fibres are then shaped into slabs on the production line. Fibres are made water-repellent on their entire surface. Slabs in construction have to be protected suitably (steam protection foil, protection from dust settling, other layers of construction).

### APPLICATION

Isover MERINO slabs are flexible and have stable shape but cannot be bear load. They are suitable for any thermal, acoustic, no-load insulation, especially for double construction, ceiling fillings, hanging false ceilings, and cavities (improving the acoustic absorption of the construction, assembled floors with posts), for ventilated facades with frame insulation (maximum two storeys, using timber studs with 300 mm clearance).

### RELATED DOCUMENTS

- EG compliance certificate 1486-CPD-0254

### PACKAGING, TRANSPORT, WAREHOUSING

Isover MERINO slabs are packaged into PE foil. They come in MPS packs (1MPS = 12 packages). Loose packages can be supplied after an agreement with the manufacturer. Slabs have to be transported in covered vehicles under conditions preventing them from getting wet or being degraded. They are stored in covered spaces.

### BENEFITS

- fire-resistant
- very good thermal insulation performance
- excellent acoustic properties in terms of noise absorption
- low vapour resistance - good water vapour penetrability
- environmentally friendly and hygienic
- completely hydrophobic
- long life span
- resistant to wood-destroying pests, rodents, and insect
- easy workability - can be cut, drilled into, etc.
- dimensional stability during temperature change

### DIMENSIONS AND PACKAGING

| Product          | Thickness (mm) | Dimensions (mm) | Packaging (m <sup>2</sup> ) | Packaging (m <sup>3</sup> ) | MPS (m <sup>2</sup> ) | Declared thermal resistance R <sub>D</sub> (m <sup>2</sup> .K.W <sup>-1</sup> ) |
|------------------|----------------|-----------------|-----------------------------|-----------------------------|-----------------------|---|
| Isover MERINO 4  | 40             | 1200 x 625      | 18.00                       | 0.34                        | 288                   | 1.00  |
| Isover MERINO 5  | 50             | 1200 x 625      | 15.00                       | 0.34                        | 240                   | 1.25  |
| Isover MERINO 6  | 60             | 1200 x 625      | 12.00                       | 0.34                        | 240                   | 1.50  |
| Isover MERINO 8  | 80             | 1200 x 625      | 9.00                        | 0.34                        | 180                   | 2.05  |
| Isover MERINO 10 | 100            | 1200 x 625      | 7.50                        | 0.34                        | 150                   | 2.55  |
| Isover MERINO 12 | 120            | 1200 x 625      | 6.00                        | 0.34                        | 120                   | 3.05  |
| Isover MERINO 14 | 140            | 1200 x 625      | 4.50                        | 0.34                        | 90                    | 3.55  |

Thickness tolerance classification T2 complies with allowed tolerance according to EN 13162: - 5% or - 5 mm, while the higher numerical value prevails and + 15% or +15 mm where the lower tolerance numerical value is predominant.

### TECHNICAL PARAMETERS

| Parameter   | Unit                                 | Value     | Norm                           |              |      |      |      |      |      |
|---|--------------------------------------|-----------|--------------------------------|--------------|------|------|------|------|------|
| <b>THERMAL INSULATING PROPERTIES</b>                              |                                      |           |                                |              |      |      |      |      |      |
| Condition set for declared values l(10°C) and (u <sub>dry</sub> ) | -                                    | -         | ČSN EN ISO 10456               |              |      |      |      |      |      |
| Declared thermal conductivity coefficient λ <sub>D</sub>          | Wm <sup>-1</sup> .K <sup>-1</sup>    | 0.039     | ČSN EN 12667                   |              |      |      |      |      |      |
| Specific heat capacity c <sub>d</sub>                             | Jkg <sup>-1</sup> .K <sup>-1</sup>   | 840       | ČSN 730540-3                   |              |      |      |      |      |      |
| <b>MECHANICAL PROPERTIES</b>                                      |                                      |           |                                |              |      |      |      |      |      |
| Specific load value   | kN.m <sup>-3</sup>                   | 0.14      | ČSN EN 1991-1-1<br>ČSN EN 1990 |              |      |      |      |      |      |
| <b>FIRE SAFETY PROPERTIES</b>                                     |                                      |           |                                |              |      |      |      |      |      |
| Reaction to fire class  | -                                    | A1        | ČSN EN 13501-1                 |              |      |      |      |      |      |
| Maximum temperature for use                                       | °C                                   | 200       | -                              |              |      |      |      |      |      |
| Melting temperature t <sub>f</sub>                                | °C                                   | < 1000    | DIN 4102 part 17               |              |      |      |      |      |      |
| <b>ACOUSTIC PROPERTIES</b>  |                                      |           |                                |              |      |      |      |      |      |
| Acoustic absorption coefficient α                                 | Application                          | Frekvence | Hz                             | 125          | 250  | 500  | 1000 | 2000 | 4000 |
|   | In front of the wall, 60 mm          | MERINO 2  | -                              | 0,10         | 0,35 | 0,60 | 0,75 | 0,90 | 0,90 |
|   |                                      | MERINO 5  | -                              | 0,25         | 0,60 | 0,90 | 1,00 | 1,00 | 1,00 |
|   |                                      | MERINO 8  | -                              | 0,45         | 0,75 | 1,00 | 1,00 | 1,00 | 1,00 |
|   | In front of the wall, 150 mm         | MERINO 2  | -                              | 0,20         | 0,55 | 0,85 | 0,85 | 0,90 | 0,90 |
|   |                                      | MERINO 5  | -                              | 0,40         | 0,75 | 1,00 | 1,00 | 1,00 | 1,00 |
| MERINO 8  |                                      | -         | 0,65                           | 1,00         | 1,00 | 1,00 | 1,00 | 1,00 |      |
| <b>OTHER PROPERTIES</b>   |                                      |           |                                |              |      |      |      |      |      |
| Specific resistance against air flow AF <sub>r</sub>              | kPa.s.m <sup>-2</sup>                | ≥ 5       | ČSN EN 29053                   |              |      |      |      |      |      |
| Water vapour penetrability  | Vapour resistance coefficient (μ) MU | -         | 1                              | ČSN EN 12086 |      |      |      |      |      |

1. 2. 2012 The information is valid up to date of publishing. The manufacturer reserves right to change the data.