# Isover FASSIL

## Mineral insulation from stone wool

**Specification code:** MW - EN 13162 - T4 - DS(T+) - MU1

## TECHNICAL SPECIFICATION

Insulating slabs made of Isover mineral wool. The production is based on defibring method of the minerals composition melt and additional additives and ingredients. The mineral fibres produced are processed into the final slab shape on the production line. The entire fibre surface is hydrophobic. The slabs in the construction should be protected suitably against the weather effects (outer sheathing, alternatively diffusion foil).

## APPLICATION

Isover FASSIL slabs are suitable for insulation of the outer walls of ventilated facade systems and are to be inserted into the grid under the cladding, or mechanically bonded into the multi-layer masonry. The slabs can be mechanically bond using the clamps for soft MW insulations. Insulating slabs are not glued to the surface. To harden the surface it is possible to manufacture these slabs coated with black or white mineral non-wooven fabric. This possible modification is called Fassil NT. The coating is not adapted to additional adjustments (painting, gluing, etc.). The material is suitable for fire protection system constructions where the density ≥ 50 kg.m$^{-3}$ is required.

**Especially the energy saving insulation type $\lambda_D$ = 0.035 W.m$^{-1}$.K$^{-1}$.**

## PACKAGING, TRANSPORT, WAREHOUSING

Isover FASSIL insulation slabs are packed into the PE foil with package height up to 0.5 m. The slabs have to be transported in covered vehicles under conditions preventing their wetting or other degradation. They should be stored flat in sheltered space to maximum layer height of 2 m.

## 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) | Per package (m²) | Declared thermal resistance $R_D$ (m².K.W$^{-1}$) |
|---|---|---|---|---|
| Isover FASSIL 5 | 50 | 1200 x 600 | 7.20 | 1.40 |
| Isover FASSIL 6 | 60 | 1200 x 600 | 5.76 | 1.70 |
| Isover FASSIL 8 | 80 | 1200 x 600 | 4.32 | 2.30 |
| Isover FASSIL 10 | 100 | 1200 x 600 | 3.60 | 2.85 |
| Isover FASSIL 12 | 120 | 1200 x 600 | 2.88 | 3.45 |
| Isover FASSIL 14 | 140 | 1200 x 600 | 2.16 | 4.00 |
| Isover FASSIL 16 | 160* | 1200 x 600 | 2.16 | 4.60 |
| Isover FASSIL 18 | 180* | 1200 x 600 | 1.44 | 5.15 |
| Isover FASSIL 20 | 200* | 1200 x 600 | 1.44 | 5.75 |

Thickness tolerance classification T4 complies with the allowed tolerance according to EN 13162: -3% or -3 mm, while the higher numerical value prevails, and + 3% or + 5 mm where the lower tolerance numerical value is predominant. * Manufacturer should be consulted as for the minimum volume.

## TECHNICAL PARAMETERS

| Parameter | | | Unit | Value | | | Norm | | |
|---|---|---|---|---|---|---|---|---|---|
| THERMAL INSULATING PROPERTIES | | | | | | | | | |
| Condition set for declared values I(10°C) and ($u_{dry}$) | | | - | - | | | EN ISO 10456 | | |
| Declared value of the thermal conductivity coefficient $\lambda_D$ (based on the set of measured values according to EN 12667) | | | W·m$^{-1}$·K$^{-1}$ | 0.035 | | | EN 13162 | | |
| Specific heat capacity $c_d$ | | | J·kg$^{-1}$·K$^{-1}$ | 800 | | | ČSN 73 0540-3 | | |
| MECHANICAL PROPERTIES | | | | | | | | | |
| Specific load value | | | kN·m$^{-3}$ | 0.50 | | | EN 1991-1-1, EN 1990 | | |
| FIRE SAFETY PROPERTIES | | | | | | | | | |
| Reaction to fire class | | | - | A1 | | | EN 13501-1 | | |
| Dimensional stability at temperature (70 ± 2) °C DS (T+) | | | % | ≤ 1 | | | EN 1604 | | |
| Maximum temperature for use | | | °C | 200 | | | - | | |
| Melting temperature $t_t$ | | | °C | ≥ 1000 | | | DIN 4102 part 17 | | |
| ACOUSTIC PROPERTIES | | | | | | | | | |
| The practical sound absorption coefficient $\alpha_p$ according to EN ISO 354 and EN ISO 11654 | Frequency | | Hz | 125 | 250 | 500 | 1000 | 2000 | 4000 |
| | Thickness | 60 | mm | 0.20 | 0.75 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | 80 | mm | 0.35 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | 100 | mm | 0.45 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| | | 120 | mm | 0.60 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Definition of single number value according to EN ISO 11654 | Single number value | | - | $\alpha_w$ | | | | | |
| | Thickness | 60 | mm | 1.00 | | | | | |
| | | 80 | mm | 1.00 | | | | | |
| | | 100 | mm | 1.00 | | | | | |
| | | 120 | mm | 1.00 | | | | | |
| OTHER PROPERTIES | | | | | | | | | |
| Specific resistance against air flow $AF_r$ | | | kPa·s·m$^{-2}$ | 14.5 | | | EN 29053 | | |
| Moisture resistance factor (μ) MU | | | - | 1 | | | EN 12086 | | |

## RELATED DOCUMENTS

- EC compliance certificate 1390-CPR-0305/11/P
- Declaration of Performance CZ0001-006 (www.isover.cz/DOP)

1. 3. 2016 The information is valid up to date of publishing. The manufacturer reserves right to change the data.

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