



Isover Flora

Hydrophilic mineral wool slabs

TECHNICAL SPECIFICATION

Hydrophilic mineral wool slabs are made of a mixture of igneous rocks (basalt, diabase, etc.), which melts at high temperatures, tears into fibres and the individual fibres are joined to one another by a binder. In contrast to building insulation, hydrophobizing oils are not added to this type of mineral wool. Therefore, the material holds water very well and creates a suitable environment for plant growth.



APPLICATION

Isover Flora are the basic substrate boards for Isover vegetation roof systems. They are mainly used for extensive and semi-intensive compositions of flat and counter roofs as a partial substrate replacement. They are light and airy, and in addition to greening new buildings, they are also suitable for renovations. Their balanced ratio of hydroaccumulation and drainage ensures the removal of excess water and, at the same time, sufficient accumulation of rainwater for periods without natural watering.

BENEFITS

- Significantly lower load on the roof.
- High draining capacity for rainwater.
- Good hydro-accumulative properties.
- High porosity - more air for roots.
- Good heat-insulating effect even when wet.
- Health, environmentally friendly and recyclable.

PACKAGING, TRANSPORT, WAREHOUSING

Isover Flora slabs are packed in PE foil. The slabs have to be transported in covered vehicles under conditions that prevent them from getting too wet or damaged. They should be stored flat in a covered, dry space, up to the maximum layer height of 2 m.

DIMENSIONS AND PACKAGING

| Thickness [mm] | Length × width [mm] | Volume per package | | | Quantity per palett | |
|-------------------|------------------------|--------------------|-------------------|-------------------|---------------------|-------------------|
| | | [pcs] | [m ²] | [m ³] | [m ²] | [m ³] |
| 30 | 1000 × 600 | 10 | 6.0 | 0.18 | 48.0 | 1.44 |
| 50 | 1000 × 600 | 8 | 4.8 | 0.24 | 28.8 | 1.44 |
| 50 | 1200 × 1000 | - | - | - | 28.8 | 1.44 |
| 100 | 1000 × 600 | 4 | 2.4 | 0.24 | 14.4 | 1.44 |
| 100 | 1200 × 1000 | - | - | - | 14.4 | 1.44 |

TECHNICAL PARAMETERS

| Parameter | Unit | Methodology | Value |
|---|--|------------------|--------|
| Thermal technical properties | | | |
| Thermal conductivity coefficient in dry state λ_D | [W·m ⁻¹ ·K ⁻¹] | EN 12667 | 0.0373 |
| Thermal conductivity coefficient at max. humidity λ_{wmax} (78% vol.) | [W·m ⁻¹ ·K ⁻¹] | EN 12664 | 0.513 |
| Specific heat capacity c_d | [J·kg ⁻¹ ·K ⁻¹] | ČSN 73 0540-3 | 800 |
| Mechanical properties | | | |
| Compressive stress | [kPa] | EN 826 | 30 |
| Fire safety properties | | | |
| Reaction to fire class | [-] | EN 13501-1+A1 | A1 |
| Maximum temperature for use | [°C] | | 200 |
| Melting temperature t_m | [°C] | DIN 4102 part 17 | ≥ 1000 |

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TECHNICAL PARAMETERS

| Parameter | Unit | Methodology | Value | | | |
|---|---------------------------------------|-------------------------------------|----------------------|-----------------|------------------|------|
| | | | thickness 30 mm | thickness 50 mm | thickness 100 mm | |
| Hydrothermal properties | | | | | | |
| Water permeability mod. K_f | [mm·min ⁻¹] | FLL | 322 | 227 | 325 | |
| Maximum water capacity WK_{max} | [vol.%] | FLL | 91.5 | 92.7 | 87.5 | |
| Hydroaccumulatory ability | [l·m ⁻²] | | 27.4 | 46.3 | 87.5 | |
| Water flow capacity on their plane at inclination at roof pitch $q_{s,g}$ | [l·m ⁻¹ ·s ⁻¹] | EN ISO 12958 | inclination 0° | 0.72 | 1.48 | 2.45 |
| | | | inclination 2° | 0.75 | 1.53 | 2.56 |
| | | | inclination 35° | 0.85 | 1.79 | 3.02 |
| Chemical properties | | | | | | |
| pH | - | according to Act No. 156/1998 Coll. | 6,5-8,5 | | | |
| Decision on the registration of the substrate | - | according to Act No. 156/1998 Coll. | 5511 ¹⁾ | | | |
| Other properties | | | | | | |
| Volume weight dry | [kg·m ⁻³] | EN 1602 | 76-100 ²⁾ | | | |
| Volume weight at maximum water capacity | [kg·m ⁻³] | EN 1602 | 1003 | | | |

¹⁾ Protocol upon request.

²⁾ Bulk density varies with product thickness. Exact values on request.

RELATED DOCUMENTS

- Declaration of Performance
- ISO 9001, ISO 14001, ISO 45001, ISO 50001
- Environmental product declaration
- FINAL PROTOCOL - substrate registration according to Act No. 156/1998 Coll. on fertilizers, as amended. Registration decision number: 5511
- ETA-23/0606 according to EAD 042461-00-1201

More about the product

www.isover.cz/en/products/mineralni-vlna/isover-flora



4/11/2024 Information valid as of date of publication. The manufacturer reserves the right to change the data.