



July 2011

TPM 135

External walls



Description

Mineral wool slabs made from fibreglass using the ECOSE® Technology. The product is standardly supplied in slabs packed in packages containing several pieces. Recommended application: external walls.

Specification

Thickness	Width	Length	Thermal conductivity coefficient	Thermal resistance
[mm]	[mm]	[mm]	λ_D [W/mK]	R [m ² K/W]
50	560	1220	0,035	1,43
80	600	1250	0,035	2,29
100	600	1250	0,035	2,86
120	600	1250	0,035	3,43
130	600	1250	0,035	3,71
140	600	1250	0,035	4,00
160	600	1250	0,035	4,57
180	560	1220	0,035	5,14
200	570	1170	0,035	5,71
220	625	1170	0,035	6,29

Basic characteristics

Thermal conductivity coefficient

$\lambda_D = 0,035$ W/mK

Reaction to fire

A1

Advantages

- best thermal and sound insulation properties
- high fire resistance
- large bulk density
- superior rigidity
- simple and easy handling
- increased water repellence throughout the cross-section
- ECOSE® Technology advantages:
 - softer feel
 - less dusty
 - easy to cut



New generation of natural mineral wool made with the ECOSE® Technology. Knauf Insulation's novel mineral wool is manufactured from naturally occurring and/or secondary raw material via biotechnological joining of fibres, based on natural components and not containing formaldehyde, phenol or acryl or any artificial colouring or bleaching agents. Due to the new bonding agent used, the new mineral wool product manufactured by Knauf Insulation using the ECOSE® Technology is of naturally brown colour, without any chemical colouring agents.

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Technical data	Symbol	Value	Standards
Declared coefficient of thermal conductivity	λ_D	0,035 W/mK	EN 12 667, EN 12 939
Reaction to fire	-	A1	EN 13 501-1
Accuracy of thickness tolerance	-	T4	EN 823
Tension strength	-	> double weight	-
Airflow electrical resistance	A_{F_r}	$\geq 5.0 \text{ kPa}\cdot\text{s}/\text{m}^2$ based on thickness-dependent value	EN 29 053
Water absorption when briefly immersed	W_p	< $1 \text{ kg}/\text{m}^2$	EN 1609
Water absorption in case of lengthy but partial immersion	W_{p_1}	< $3 \text{ kg}/\text{m}^2$	EN 12 087
Diffusion resistance factor	μ	1	EN 12 086
CE marking	-	MW-EN 13162-T4-WS-WL(P)-AF,5	EN 13162
EC conformity certificate	CE	0764-CPD-0122	-

Application

TPM 135 mineral wool slabs manufactured using the ECOSE® Technology are characterised by excellent thermal insulation. They are designed for application as thermal and sound insulation solutions in ventilated façade wall structures, multi-layered walls, hangars (cassette walls) and as insulation for external wall grillage on the inside (for example, when restoring buildings of historic value). It is recommended to install on the outside of ventilated façades a windscreen to prevent winds blowing through the insulation. In external wall insulation systems the thermal insulation installed on the inside must have a vapour barrier to protect the wall from condensation moisture. In metal cassette walls the internal metal cover layer acts as a vapour barrier. The material can also be used as a thermal and sound insulation solution in horizontal structures (for example, in densely ribbed timber ceilings between storeys, framework and framework-transom structures), installed between inter-storey beams. Vapour barrier film must be used on top of rooms with high-pressure water steam emissions (for example, at high temperatures or high relative humidity level) to protect the insulation material from constant dampening.

Packaging

TPM 135 slabs are packed in bundles. The consolidated packaging has a protective film layer. The protective layer has the manufacturer's logo and product label containing the basic technical data and the recommended primary application description.

Quality

The Knauf Insulation company has uniform quality management certificates compliant with ISO 9001:2008, EN ISO 14001:2004 and OHSAS 18001:2007 requirements. This product is manufactured without exceeding emission limits and this is thoroughly checked by Knauf Insulation's Quality Department.

