

Isover TOPSIL

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 method is based on fibering mineral composition melt and other additives and ingredients. The mineral fibres produced are processed into the final slab shape in the production line. The entire fibre surface is water repellent. The slabs in the construction should be protected in a suitable manner (outer sheathing, alternatively diffusion foil).

APPLICATION

Isover TOPSIL slabs provide for versatile application in all types of ventilated façades, wooden buildings, walls and pitched roofs and ceilings. The material is suitable for fire protection system structures where the volume density ρ 60 kg.m⁻³ is required. **Superior thermal insulation material with $\lambda_D = 0.033 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$**

PACKAGING, TRANSPORT, WAREHOUSING

Isover TOPSIL insulation slabs are packed in PE foil with the maximum package height of 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 premises, up to the maximum layer height of 2 m. They can also be delivered on pallets 1200 × 2400 mm.

BENEFITS

- very good thermal insulation properties
- inflammability
- high fire resistance
- excellent acoustic properties in terms of noise absorption
- low vapour resistance - good water vapour penetrability
- environmentally friendly and hygienic
- water repellency – the insulation materials are water repellent
- long life span
- resistant to wood-destroying pests, rodents, and insect
- ease of working - the products can be cut, drilled into, etc.
- dimensional stability at temperature variations

DIMENSIONS AND PACKAGING

Product	Thickness (mm)	Dimensions (mm)	Package (m ²)	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
Isover TOPSIL	40	1200 × 600	8,64	1,20
Isover TOPSIL	50	1200 × 600	7,20	1,50
Isover TOPSIL	60	1200 × 600	5,76	1,80
Isover TOPSIL	80	1200 × 600	4,32	2,40
Isover TOPSIL	100	1200 × 600	3,60	3,00
Isover TOPSIL	120	1200 × 600	2,88	3,65
Isover TOPSIL	140	1200 × 600	2,16	4,25
Isover TOPSIL	160	1200 × 600	2,16	4,85

Thickness tolerance classification T4 complies with allowed tolerance according to EN 13162: -3% or - 3 mm, while the higher numerical value prevails and +5% or + 5 mm, while the lower numerical value prevails.

TECHNICAL PARAMETERS

Parameter	Unit	Value	Standard
THERMAL PROPERTIES			
Condition set for declared values I(10°C) and (u _{dry})	-	-	EN ISO 10456
Declared value of the thermal conductivity coefficient λ_D (based on the set of measured values according to EN 12667)	Wm ⁻¹ ·K ⁻¹	0.033	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	0.60	EN 1991-1-1, EN 1990
FIRE SAFETY PROPERTIES			
Reaction to fire class	-	A1	EN 13501-1
Dimensional stability at (70 ± 2) °C DS (T+)	%	≤ 1	EN 1604
Maximum temperature for use	°C	200	-
Melting temperature t _i	°C	≥ 1000	DIN 4102 part 17
ACOUSTIC PROPERTIES			
The practical sound absorption coefficient α_p according to EN ISO 354 and EN ISO 11654	Frequency	Hz	125 250 500 1000 2000 4000
	Thickness	40 mm	0.16 0.47 0.86 1.00 1.00 1.00
		60 mm	0.27 0.92 1.00 1.00 1.00 1.00
		80 mm	0.51 1.00 0.96 1.00 1.00 1.00
		100 mm	0.50 1.00 0.98 1.00 1.00 1.00
Definition of single number value according to EN ISO 11654	Single number value	-	α_w
	Thickness	40 mm	0.75 (MH)
		60 mm	1.00
		80 mm	1.00
		100 mm	1.00
OTHER PROPERTIES			
Specific resistance against air flow AF _r	kPa·s·m ⁻²	22,1	EN 29053
Moisture resistance factor (μ) MU	-	1	EN 12086

RELATED DOCUMENTS

- Declaration of Performance CZ0001-043 (www.isover.cz/DOP)

1. 4. 2017 The information is valid up to date of publishing. The manufacturer reserves right to change the data.