

Isover N

Mineral insulation from stone wool



Specification code: MW - EN 13162 - T6 - CP5 - SDi* - MU1
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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 have to be protected suitably (separating PE foil).

APPLICATION

Isover N slabs are suitable for improving impact and airborne sound reduction in heavy floating floors under reinforced concrete slab (thicker slab can be also used in walls as an airborne sound insulation). Improvement in impact sound reduction in floors depends on use of the Isover N/PP insulating strips. The approved flatness of the underlay surface, when laying the flooring material, is 2 mm/2 m. The slabs are suitable for habitable rooms especially in family and apartment houses, imposed load $\leq 2\text{kN/m}^2$.

PACKAGING, TRANSPORT, WAREHOUSING

Isover N 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

- very good thermal insulation performance
- fire resistance
- 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.

DIMENSIONS, INSULATION AND ACOUSTIC

Product	Thickness (mm)	Dimensions (mm)	Per package (m ²)	Dynamic rigidity (MN·m ⁻³)	Reduction of the impact sound acoustic pressure (dB) ¹⁾	Declared thermal resistance R _D (m ² ·K·W ⁻¹)
Isover N 2,0	20	1200 × 600	11,52	26	24	0,55
Isover N 2,5	25	1200 × 600	8,64	23	27	0,65
Isover N 3,0	30	1200 × 600	7,20	19	28	0,80
Isover N 3,5 ²⁾	35	1200 × 600	5,76	-	-	0,95
Isover N 4,0	40	1200 × 600	5,76	10	34	1,10
Isover N 5,0	50	1200 × 600	4,32	8	35	1,35
Isover N 6,0 ²⁾	60	1200 × 600	3,60	-	-	1,65
Isover N 7,0 ²⁾	70	1200 × 600	2,88	-	-	1,90
Isover N 8,0 ²⁾	80	1200 × 600	2,88	-	-	2,20
Isover N 10,0 ²⁾	100	1200 × 600	2,88	-	-	2,75
Isover N 12,0 ²⁾	120	1200 × 600	1,44	-	-	3,30

Thickness tolerance classification T6 (slabs $\leq 50\text{mm}$) complies with allowed tolerance according to EN 13162: -5% or - 1 mm and +15% or + 3 mm, the higher numerical value prevails in both the cases.

Thickness tolerance classification T5 (slabs $\geq 60\text{mm}$) complies with allowed tolerance according to EN 13162: -1% or - 1 mm and + 3mm, while the higher numerical value prevails. Slabs with these thicknesses are not designed into the floor constructions.

¹⁾ Determined by a calculation made for a heavy floating floor upon a standard 120 mm reinforced concrete ceiling slab and 50 mm bearing concrete slab.

²⁾ These thicknesses are dedicated only for export purposes.

TECHNICAL PARAMETERS

Parameter	Unit	Value	Norm
THERMAL INSULATING PROPERTIES			
Condition set for declared values I(10°C) and (u _{dn})	-	-	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	0.036	EN 13162
Specific heat capacity c _d	Jkg ⁻¹ K ⁻¹	800	73 0540-3
MECHANICAL PROPERTIES			
Compressibility (slabs $\leq 50\text{mm}$) CP	mm	≤ 5	EN 12431
Specific load value	kN·m ⁻³	1.00	EN 1991-1-1, EN 1990
FIRE SAFETY PROPERTIES			
Reaction to fire class	-	A1	EN 13501-1
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	mm	0.05 0.20 0.55 0.85 0.95 1.00
Definition of single number value according to EN ISO 11654	Single number value	-	α_w
	Thickness	mm	0.50 0.80
OTHER PROPERTIES			
Moisture resistance factor (μ) MU	-	1	EN 12086

RELATED DOCUMENTS

- EC compliance certificate 1390-CPR-0305/11/P
- Declaration of Performance CZ0001-009 (www.isover.cz/DOP)

1. 6. 2016 The information is valid up to date of publishing. The manufacturer reserves right to change the data.