SVT code: 949
Product identification code: CZ0001-033
Specification code: MW-EN 13 162-T5-DS(70,-)-CS(10)30-TR1-WS-WL(P)-MU1

Isover R

Stone wool insulation

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 (vapour-proof foil, water-proofing, flat roof bearing layer, etc.)

APPLICATION

Isover R slabs are designed for thermal, acoustic and fire insulation of the flat warm decks. The slabs are entirely used as an underlayer to another spreading thermal insulative course, e.g. Isover S. Slabs are to be laid on vapour barrier, supporting construction or gravity flow system. The gravity flow systém is possible to create from Isover SD gravity flow slabs or as well as from Isover DK double gravity flow wedge blocks in gravity flow up to 15%. Whole structure is recommended to complete with Isover AK attic wedge blocks which helps to better change the horizontál direction of the water-proofing into the perpendicular direction.

BENEFITS

- Cery 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 insects.
- Easy workability – can be cut, drilled into, etc.

PACKAGING, TRANSPORT, WAREHOUSING

Isover R insulating slabs are packed into the PE foil to the maximum high 1.3 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.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Transport packaging [m^3]	Volume per package [m^2]	Declared thermal resistance R_D [$m^2 \cdot K \cdot W^{-1}$]
60	2 000 × 1 200	3.024	50.4	1.65
80	2 000 × 1 200	3.072	38.4	2.20
100	2 000 × 1 200	3.120	31.2	2.75
120	2 000 × 1 200	3.168	26.4	3.30
140	2 000 × 1 200	2.688	21.6	3.85
160	2 000 × 1 200	3.072	19.2	4.40

TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code	
Geometric shape					
Length *l*	[%, mm]	EN 822	±2 %		
Width *b*	[%, mm]	EN 822	±1,5 %		
Thickness *d*	[%, mm]	EN 823	-3 % or -3 mm[1] and +5 % or +5 mm[2]	Class of thickness tolerances	T5
Deviation from squareness of the edge on length and width S_b	[mm·m^{-1}]	EN 824	5		
Deviation from flatness S_{max}	[mm]	EN 825	6		
Relative change in length $\Delta\varepsilon_l$, in width $\Delta\varepsilon_b$, in thickness $\Delta\varepsilon_d$	[%]	EN 1604	1	Dimensional stability under the specified temperature and humidity conditions	DS(70,90)

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TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code	
Thermal technical properties					
Declared value of thermal conductivity coefficient λ_D [3]	[W·m^{-1}·K^{-1}]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.036		
Design thermal conductivity λ_u [4]	[W·m^{-1}·K^{-1}]	ČSN 73 0540-3	0.037		
Specific heat capacity c_d	[J·kg^{-1}·K^{-1}]	ČSN 73 0540-3	800		
Mechanical properties					
Compressive stress at 10% deformation σ_{10}	[kPa]	Declaration according to EN 826	30	Declared level of compressive stress at 10% deformation	CS(10)30
Tensile strength perpendicular to faces σ_{mt}	[kPa]	Declaration according to EN 1607	1	Declared level of tensile strength perpendicular to faces	TR1
Fire safety properties					
Reaction to fire class	[-]	Declaration according to EN 13501-1+A1	A1		
Maximum temperature for use	[°C]		200		
Melting temperature t_t	[°C]	DIN 4102 part 17	≥ 1000		
Hydrothermal properties					
Short-term water absorption W_p	[kg·m^{-2}]	Declaration according to EN 13162+A1 Measurement according to EN 1609	1	Declared level for short-term water absorption	WS
Long-term water absorption by partial immersion W_{lp}	[kg·m^{-2}]	Declaration according to EN 13162+A1 Measurement according to EN 12087	3	Declared level for long-term water absorption by partial immersion	WL(P)
Water vapour diffusion resistance factor μ	[-]	Declaration according to EN 13162+A1 Measurement according to EN 12086	1	Declared value for water vapour diffusion resistance factor	MU1
Other properties					
Density [5]	[kg·m^{-3}]	EN 1602	100–142		

[1] Value with greatest numerical tolerance.
[2] Value with lowest numerical tolerance.
[3] Declared values were set under the following conditions: (reference temperature 10 °C, humidity u_{dry} reached by drying) according to EN ISO 10456.
[4] Valid for typical use in construction with risk of condensation. In the case of construction without any risk of condensation, it is possible to use the declared value of thermal conductivity.
[5] The apparent density is only informative in connection with logistics and static needs.

RELATED DOCUMENTS

- Declaration of Performance
- Certificate of constancy of performance
- Environmental Product Declaration
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

More about the product

www.isover.cz/en/products/isover-r

1/6/2024 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.

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