SAINT-GOBAIN

SVT code: 431
Product identification code: CZ0001-022
Specification code: MW-EN 13 162-T5-DS(TH)-CS(10)30-TR10-WS-WL(P)-MU1

Isover TF Profi

Stone wool insulation

TECHNICAL SPECIFICATION

Insulating slabs made of Isover mineral wool with longitudinal fibres. Production is based on drawing the mineral composition melt wiith other additives and ingredients. The mineral fibres produced are processed into the final slab shape on the production line. The entire fibre surface is hydrophobic and has longitudinal orientation. The slabs in the construction have to be protected suitably (layers of the contact wall insulation system).

APPLICATION

Isover TF Profi facade slabs with longitudinal fibres are suitable for external thermal insulation composite systems (ETICS), where they are glued and mechanically bonded to a sufficiently coherent and sound wall surface. The layers of contact insulating systems are applied on the slabs: bond, reinforcement grid, penetration, plaster, and paint. Bonding of the slabs can be performed with the glue being applied along the edge and at the patches in centre of the slab. The number of the anchors for machanically anchoring is usually 5 to 6 pc/m^2, the exact number to be specified by the designer. The anchors will be arranged according to the instructions of the certified insulating system manufacturer. Appropriate also for flush mounting systems.

BENEFITS

- Quality class A
- System certification
- Very good thermal insulation performance (λ_D = 0.035 W·m^{-1}·K^{-1}).
- 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, glued, etc.
- Meets requirements for flush mounting with anchors and 60 mm disk.

PACKAGING, TRANSPORT, WAREHOUSING

Isover TF Profi insulation slabs are packed into the PE film covered packets or as packets on a pallet. Isover TF Profi is standardly delivered on wooden pallet. Material has to be transported and stocked under conditions preventing wetting or other degradation.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Volume per package			Quantity per pallet [m^2]	Declared thermal resistance R_D [m^2·K·W^{-1}]
		[pcs]	[m^2]	[m^3]		
30	1 000 × 600	7	4.20	0.126	100.8	0.85
40	1 000 × 600	6	3.60	0.144	72.0	1.10
50	1 000 × 600	5	3.00	0.150	60.0	1.40
60	1 000 × 600	5	3.00	0.180	48.0	1.70
80	1 000 × 600	3	1.80	0.144	36.0	2.25
100	1 000 × 600	3	1.80	0.180	28.8	2.85
120	1 000 × 600	3	1.80	0.216	25.2	3.40
140	1 000 × 600	2	1.20	0.168	21.6	4.00
150	1 000 × 600	2	1.20	0.180	21.6	4.25
160	1 000 × 600	2	1.20	0.192	19.2	4.55
180	1 000 × 600	2	1.20	0.216	16.8	5.10
200	1 000 × 600	1	0.60	0.120	15.6	5.70
220	1 000 × 600	1	0.60	0.132	13.2	6.25
240	1 000 × 600	1	0.60	0.144	12.0	6.85
260	1 000 × 600	1	0.60	0.156	12.0	7.40
280	1 000 × 600	1	0.60	0.168	10.8	8.00
300	1 000 × 600	1	0.60	0.180	9.6	8.55

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TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code	
Geometric shape					
Length *l*	[%, mm]	EN 822	±1%		
Width *b*	[%, mm]	EN 822	±1,5%		
Thickness *d*	[%, mm]	EN 823	-1% or -1 mm[1] and +3 mm	Class of thickness tolerances	T5
Deviation from squareness of the edge on length and width S_b	[mm·m^{-1}]	EN 824	2		
Deviation from flatness S_{max}	[mm]	EN 825	5		
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)
Thermal technical properties					
Declared value of thermal conductivity coefficient λ_D[2]	[W·m^{-1}·K^{-1}]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.035		
Design thermal conductivity λ_u[3]	[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	10	Declared level of tensile strength perpendicular to faces	TR10
Shear strength	[kPa]	EN 13162+A1 Measurement according to EN 12090	20[4]	Level of shear strength	SS20
Shear modulus	[kPa]	Measurement according to EN 12090	1000[4]		
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	[kg·m^{-3}]	EN 1602	80–150[5]		
Acoustic properties					

Practical sound absorption coefficient α_p

[-]	EN 13162+A1 EN ISO 11654 Measurement according to EN ISO 354	Level of practical sound absorption coefficient					AP
Frequency		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz
Thickness	60 mm	0.30	0.90	1.00	1.00	1.00	1.00
	100 mm	0.55	1.00	1.00	1.00	1.00	1.00
	140 mm	0.65	0.95	1.00	1.00	1.00	1.00

Weighted sound absorption coefficient α_w
Sound Absorption Average α_{stf}
Noise reduction coefficient NRC

[-]	EN ISO 11654 (for NRC according ASTM C423)	Level of weighted sound absorption coefficient			AW
Single number value		α_w	α_{stf}	NCR	
Thickness	60 mm	1.00	-	0.90	
	100 mm	1.00	-	1.00	
	140 mm	1.00	-	1.00	

Specific air flow resistivity *r*

	EN 13162+A1	Level of air flow resistivity						
[mm]	Measurement according to EN ISO 9053-1	100	120[6]	140[6]	150[6]	160	180[6]	200[6]
[kPa·s·m^{-2}]		23.8	23.0	22.2	21.8	21.4	20.6	19.8

Dynamic rigidity *s'*

[MN·m^{-3}]	EN 13162+A1	Value of dynamic rigidity						SD
[mm]		100	120[6]	140[6]	150[6]	160	180[6]	200[6]
[MN·m^{-3}]	Measurement according to ČSN ISO 9052-1 (idt. EN 29052-1	9.2	9.2	9.3	9.3	9.3	9.3	9.4

[1] Value with greatest numerical tolerance.
[2] Declared values were set under the following conditions: (reference temperature 10 °C, humidity u_{dry} reached by drying) according to EN ISO 10456.
[3] 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.
[4] Informative non-declared value beyond the scope of CPR, obtained by specific tests.
[5] The density is not constant and varies with the thickness of the product.
[6] Interpolated and extrapolated values.

RELATED DOCUMENTS

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

More about the product

www.isover.cz/en/products/isover-tf-profi

4/11/2024 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.

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