

Specification code: MW - EN 14303 - T5 - CS(10)20 - ST(+)700 - WS1 - CL10



Isover FireProtect® 150

(Isover Tank Roof Slab 20 kPa)
Slabs of mineral wool

PRODUCT DESCRIPTION

Isover FireProtect® 150 is very strong and rigid slab.



APPLICATION

Isover FireProtect* 150 is very strong and rigid stone wool slab for the thermal and acoustic insulation of constructions where higher demands are made on the temperature resistance and mechanical loads of the insulation. The slab fulfils the requirements of SSG 7591 for a bottom layer of storage tank roof insulation (compressive strength 20 kPa) under trademark Isover Tank Roof Slab 20 kPa. Isover FireProtect* 150 slab is the main part of the Isover FireProtect* system which provides efficient fire protection of structural steelwork according to EN 13381-4:2013 and fire protection of corrugated metal sheets according to EN 1365-2:2015. It is also used as a semi-product for additional processing. Exceptional thickness tolerance ±1 mm at a production of the slab is ideal for a production of fire doors. Slabs are also used for fire-stopping solutions (Hilti, Intumex etc.) when pipes, cables, etc. penetrate fire separation walls.

Despite the fact that hydrophobing additives in the insulation impede the ingress of water, it is necessary to protect the slab in the construction against moisture and possible mechanical damage by a proper manner.

Isover FireProtect $^{\circ}$ 150 has a maximum service temperature of 700 $^{\circ}$ C according to EN 14706. If the slab is with a facing then the surface temperature must not exceed 100 $^{\circ}$ C on the facing; proper thickness of insulation must be designed to fulfil that. Binders and greasing agents in mineral wool products dissolve and evaporate in areas with temperatures > 150 $^{\circ}$ C. In the outer, colder areas, no dissolution and evaporation take place.

PACKAGING, TRANSPORT, WAREHOUSING

The product is supplied as free slabs 1000×1200 mm stored on a wooden pallet, piled on top of each other or as packages 600×1200 on a pallet. Slabs must be stored in covered places under such conditions to avoid moistening or other degradation.

BENEFITS

- Exceptional thickness tolerance ±1 mm at a production of the slabs is ideal for a production of fire doors.
- System certificate for fire protection of steel members according to EN 13381-4:2013.
- System certificate for fire protection of corrugated metal sheets according to EN 1365-2:2015.
- The slab fulfils the requirements of SSG 7591 for a bottom layer of storage tank roof insulation under trademark Isover Tank Roof Slab 20 kPa (minimum compressive strength resistance 20 kPa).
- Excellent insulation performance.
- Extremely high temperature operation (up to 700 °C MST).
- Easy to handle, easy to cut with a sharp knife.
- AS quality suitable for use over stainless steel.

DIMENSIONS AND PACKAGING

Thickness [mm]	Free slabs on a pallet		Packages on a pallet								
	Dimensions [mm]	m² / Pallet	Dimensions [mm]	m² / Pallet	m² / Package	Package/ Pallet	Slabs / Package				
20	1000 × 1200	72.00	600 × 1 200*	86.40	8.64	10	12				
25	1000 × 1200	57.60	-	-	-	-	-				
30	1000 × 1200	48.00	600 × 1 200*	60.48	5.04	12	7				
35*	1000 × 1200	39.60	-	-	-	-	-				
40	1000 × 1200	36.00	600 × 1 200*	43.20	4.32	10	6				
50	1000 × 1200	28.80	600 × 1 200*	34.56	2.88	12	4				
60*	1000 × 1200	24.00	600 × 1 200*	28.80	2.88	10	4				
80*	1000 × 1200	19.20	600 × 1 200	21.60	2.16	10	3				
100*	1000 × 1200	14.40	600 × 1 200	17.28	1.44	12	2				

Slabs can be manufactured with white glass tissue facing (Isover FireProtect® 150F). Other thicknesses and dimensions then stated can be produced at request when fulfilling minimum volume. Thickness tolerance: ±1 mm.



^{*} Minimal volume need to be consulted with a producer

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TECHNICAL PARAMETERS

Parameter			Unit Value				Standard						
Thermal technical properties													
Declared value of the thermal conductivity coefficient $\lambda_{_{\rm D}}$ according to EN ISO 13787			°C W·m ⁻¹ ·K ⁻¹	50 0.041	100	150 0.053	200	250 0.068	300 0.077	400 0.098	500 0.123	600 0.154	700 0.192
Measured value of the thermal conductivity coefficient according to EN 12667*		W·m⁻¹·K⁻¹	0.039	0.045	0.052	0.057	0.064	0.072	0.090	0.113	0.141	0.174	
Declared value of the thermal conductivity coefficient λ_o for 10 °C (determined from series of measured values according to EN 12667)			W·m ⁻¹ ·K ⁻¹	0.036 EN 13162									
Maximum service temperature ST(+)			°C	700 EN 14706						5			
Specific heat capacity $c_{ ho}^{\ *}$			J·kg ⁻¹ ·K ⁻¹	800 -									
Physical properties													
Density (thickness 20 and 25 mm)*			kg·m⁻³	165					EN 1602, EN 13470				
Density (thickness ≥ 30 mm)*			kg·m⁻³	150					EN 1602, EN 13470				
Short-term water absorption (W_p) WS			kg·m⁻²	<< 1 EN ISO 29767						67			
Water vapour diffusion resistance factor (μ) MU*			-			1,0		EN 12086					
Longitudinal air-flow resistance =*			kPa·s·m ⁻²	² > 90 EN ISO 9053-1									
Mechanical properties													
Compressive stress at 10 % deformation (σ_{10}) CS(10)			kPa	≥ 20 EN					EN 826	EN 826			
Fire safety properties													
Reaction to fire			-	A1				EN 13501-1					
Melting temperature t_t^*			°C	≥ 1 000			DIN 4102 part 17						
Acoustic properties													
	Frequency		Hz	125	5	250		500	1 00	0	2 000	4	000
Acoustic absorption coefficient a_p for perpendicular impact of acoustic		20	mm	0.0	5	0.20	(0.55	0.8	5	0.95		1.00
waves (-) according to EN ISO 354	Thickness	40	mm	0.20	0	0.65	(0.90	0.9	0	0.95	(0.95
and EN ISO 11654*	HICKHESS	60	mm	0.2	5	0.65	(0.80	0.8	5	0.90	(0.95
		100	mm	0.4	0	0.70		0.85	0.9	5	0.95	(0.95
	Weighted sound absorption coefficient		-	α_w			Absorption class						
Definition of single numerical value	Thickness	20	mm	0.50 (M, H)				D					
according to EN ISO 11654*		40	mm	0.90				А					
		60	mm		0.85				В				
		100	mm	0.90				A					

 $^{^{\}ast}$ Informative non-declared value beyond scope of CPR, obtained by concrete tests.

More about the product

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

www.isover.cz/en/products/isover-fireprotect-150



1/9/2025