![ISOVER SAINT-GOBAIN logo]

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® 150 has a maximum service temperature of 700 °C according to EN 14706. If the slab is with a facing then the surface temperature must not exceed 100 °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 °C. In the outer, colder areas, no dissolution and evaporation take place.

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.

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.

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	1 000 × 1 200	72.00	600 × 1 200*	86.40	8.64	10	12
25	1 000 × 1 200	57.60	-	-	-	-	-
30	1 000 × 1 200	48.00	600 × 1 200*	60.48	5.04	12	7
35*	1 000 × 1 200	39.60	-	-	-	-	-
40	1 000 × 1 200	36.00	600 × 1 200*	43.20	4.32	10	6
50	1 000 × 1 200	28.80	600 × 1 200*	34.56	2.88	12	4
60*	1 000 × 1 200	24.00	600 × 1 200*	28.80	2.88	10	4
80*	1 000 × 1 200	19.20	600 × 1 200	21.60	2.16	10	3
100*	1 000 × 1 200	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 λ_D according to EN ISO 13787	°C	50	100	150	200	250	300	400	500	600	700
	$W·m^{-1}·K^{-1}$	0.041	0.047	0.053	0.060	0.068	0.077	0.098	0.123	0.154	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_D 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				
Specific heat capacity c_p*	$J·kg^{-1}·K^{-1}$	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				
Water vapour diffusion resistance factor (μ) MU*	-	1,0					EN 12086				
Longitudinal air-flow resistance Ξ*	$kPa·s·m^{-2}$	> 90					EN ISO 9053-1				
Mechanical properties											
Compressive stress at 10 % deformation (σ_{10}) CS(10)	kPa	≥ 20					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											

Acoustic absorption coefficient a_p for perpendicular impact of acoustic waves (-) according to EN ISO 354 and EN ISO 11654*	Frequency		Hz	125	250	500	1 000	2 000	4 000
	Thickness	20	mm	0.05	0.20	0.55	0.85	0.95	1.00
		40	mm	0.20	0.65	0.90	0.90	0.95	0.95
		60	mm	0.25	0.65	0.80	0.85	0.90	0.95
		100	mm	0.40	0.70	0.85	0.95	0.95	0.95

Definition of single numerical value according to EN ISO 11654*	Weighted sound absorption coefficient		-	a_w	Absorption class
	Thickness	20	mm	0.50 (M, H)	D
		40	mm	0.90	A
		60	mm	0.85	B
		100	mm	0.90	A

* Informative non-declared value beyond scope of CPR, obtained by concrete tests.

1/6/2023   The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.