# **Isover FireProtect® 150** (TECH Slab HT 6.2) Ślab

Specification code: MW - EN 14303 - T4 - ST(+)700 - WS1

## TECHNICAL SPECIFICATION

Mineral wool slabs are bonded plane form pieces of rectangular cross-sections, the thickness of which is notably smaller than the other dimensions. The production is based on the defibering of molten raw materials consisting of minerals and different amounts of artificial resins as binders, mineral oils for dust suppression and hydrophobic means dependent on the application. Fibres are hydrophobic according to EN 1609.

#### APPLICATION

Slabs Isover FireProtect® 150 are used for several applications. The ISOVER FireProtect® system provides efficient protection of structural steelwork, FireProtect® system provides efficient protection of structural steelwork, contains few components and can be installed without using complex and expensive equipment. The system is tested according to ENV 13381-4 and approved by Norwegian lab SINTEF NBL. It is also used as a semi-product for additional processing. Exceptional thickness tolerance ±1 mm at a production of FireProtect® slabs is ideal for a production of fire doors. Slabs are also used for fire-stopping solutions when pipes, cables, etc. penetrate fire separation walls. For outdoor application metal steel jacketing is required. Slabs can be manufactured with glass tissue facing (FireProtect® 150F). When exposure to high temperatures and long-term dynamic loads (vibrations), wired mats Orstech DP are recommended instead of slabs.

FireProtect<sup>®</sup> 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 puter ender areas no direction take others outer, colder areas, no dissolution and evaporation take place.

very good thermal insulation performance (low thermal conductivity)

BENEFITS

fire resistance - non-combustible material high temperature resistance (possibility of application up to a maximum surface temperature of 700 °C)

PACKAGING, TRANSPORT, WAREHOUSING

Slabs Isover FireProtect<sup>®</sup> 150 with dimension 1000 x 1200 mm are stored on a wooden pallet, piled on top of each other. Available are also slabs 600 x 1200 mm packed into PE foil, delivered as 4 packages on a pallet. Pallet is packed into a shrinkable PE foil. The upper part of the pallet is covered by thicker PE foil. Slabs must be stored in covered places under

very good sound attenuation (high absorption coefficient) environmental friendly and hygienic

such conditions to avoid moistening or other degradation.

- hydrophoby Isover insulation materials are made water repellent
- long life span (material is not aging)
- resistant to wood-destroying pests, rodents, and insect easy to handle, easy to cut with a sharp knife

#### RELATED DOCUMENTS

- Certificate of Constancy of Performance 1390-CPR-0313/11/P
- Declaration of Performance CZ0002-023 (www.isover.cz/DOP)

## DIMENSIONS AND PACKAGING

Product	Thickness (mm)	Dimensions (mm)							
		slabs are stored on a pallet	packages on a pallet						
Isover FireProtect <sup>®</sup> 150	20	1000 x 1200	600 x 1200						
Isover FireProtect <sup>®</sup> 150	25	1000 x 1200	-						
Isover FireProtect <sup>®</sup> 150	30	1000 x 1200	600 x 1200						
Isover FireProtect <sup>®</sup> 150	35*	1000 x 1200	-						
Isover FireProtect <sup>®</sup> 150	40	1000 x 1200	600 x 1200						
Isover FireProtect <sup>®</sup> 150	50	1000 x 1200	600 x 1200						
Isover FireProtect <sup>®</sup> 150	60	1000 x 1200	600 x 1200						
Isover FireProtect <sup>®</sup> 150	80*	1000 x 1200	600 x 1200						
Isover FireProtect <sup>®</sup> 150	100*	1000 x 1200	600 x 1200						

Other thicknesses and dimensions then stated can be produced at request when fulfilling minimum volume. Thickness tolerance: ±1 mm, width tolerance: ±5 mm, length tolerance: ±8 mm. \* Minimal volume need to be consulted with a producer.

### TECHNICAL PARAMETERS

Parameter			Unit Value				Standard									
THERMAL INSULATING PROPERTIES																
Declared value of the thermal conductivity coefficient $\lambda_{p}$			°C	10	40	50	100	150	200	250	300	400	500	600	650	700
according to EN ISO 13787			W <sup>.</sup> m <sup>-1.</sup> K <sup>-1</sup>	0.036	0.039	0.041	0.047	0.053	0.060	0.068	0.077	0.098	0.123	0.154	0.172	0.192
Measured value of the thermal conductivity coefficient			M/m -1.K-1	0.024	0 0 20	0.040	0.045	0.05.2		0.066	0.074	0.004	0 1 1 0	0147	0161	0 1 0 2
according to EN 12667			VVIII K	0.034	0.038	0.040	0.045	0.052	0.058	0.000	0.074	0.094	0.118	0.147	0.104	0.185
Maximum service temperature			°C	700						EN 14706						
Specific heat capacity c			J.kg <sup>-1</sup> .K <sup>-1</sup>	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			kg·m-2		<< 1						EN 1609					
Diffusion resistance factor			-	1.0						EN 12086						
Flow resistance $\Xi$			kPa.s.m <sup>-2</sup>	91						EN 29053						
FIRE SAFETY PROPERTIES																
Reaction to fire			-	A1					EN 13501-1							
Melting temperature t,			°C	≥ 1000						DIN 4102 part 17						
ADDITIONAL PROPERTIES																
Acoustic absorption	Fre	quency	Hz	1	25		250		500		1000		200	0	400	00
coefficient α	Thickness	20	mm	0.	.05	(	0.20		0.55		0.85		0.95	5	1.0	00
for perpendicular impact of		40	mm	0.	.20	(	0.65		0.90		0.90		0.9	5	0.9	95
acoustic waves (-) according to		60	mm	0.	.35	(	0.85		0.90		0.95		0.9	5	1.0	00
EN ISO 354 and EN ISO 11654		100	mm	0.	.45	(	0.70		0.85		0.95		0.9	5	1.0	00
	Single nur	-	a <u></u>				α,,,,			NCR						
Definition of single number	20		mm	0.50 (M. H)				0.64			0.65					
value according to	Thickness -	40	mm	0.90				0.85			0.85					
EN ISO 11654		60	mm		0.95			0.90				0.90				
		100	mm		0.90				0.86				0.85			

15. 4. 2015 The information is valid up to date of publishing. The manufacturer reserves right to change the data.



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