



Isover Intense

Slabs of hydrophilic mineral wool

TECHNICAL SPECIFICATION

Slabs of hydrophilic mineral wool are made of a mixture of igneous rocks (basalt, diabase, etc.), which melts at high temperatures, tears to fibres and the individual fibres are bonded to one another by a binder. Hydrophobizing oils are not added to this type of mineral wool, unlike building insulation. Therefore, the material holds water very well and creates a suitable environment for plant growth.



APPLICATION

Isover Intense are reinforced hydroaccumulation boards that are used as the bottom hydroaccumulation layer of intensive roof systems. They can also be used as a reinforcing layer above the Isover Flora boards in places where the roof is in more frequent use. Thanks to the increased power of hydroaccumulation, these boards can also be applied to sloping green roofs.

BENEFITS

- Increased strength allowing more frequent foot traffic.
- Excellent hydro-accumulative properties.
- Good heat-insulating effect even if wet.
- Health, environmentally friendly and recyclable.

PACKAGING, TRANSPORT, WAREHOUSING

Isover Intense slabs are packed in PE foil. The slabs have to be transported in covered vehicles under conditions preventing their excessive wetting or other degradation. They should be stored flat in sheltered dry premises, up to the maximum layer height of 2 m.

DIMENSIONS AND PACKAGING

Thickness [mm]	Length x width [mm]	Volume per package			Quantity per palette	
		[pcs]	[m ²]	[m ³]	[m ²]	[m ³]
50	1000 × 600	5	3.0	0.15	30.0	1.50
100	1000 × 600	3	1.8	0.18	14.4	1.44

TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value
Thermal technical properties			
Thermal conductivity coefficient at dry state λ_D	[W·m ⁻¹ ·K ⁻¹]	EN 12667	0.035
Thermal conductivity coefficient at max. humidity λ_{Wmax} (78 % obj.)	[W·m ⁻¹ ·K ⁻¹]	EN 12664	0.355
Specific heat capacity c_d	[J·kg ⁻¹ ·K ⁻¹]	ČSN 73 0540-3	800
Mechanical properties			
Compressive stress	[kPa]	EN 826	50
Fire safety properties			
Reaction to fire class	[-]	EN 13501-1+A1	A1
Maximum temperature for use	[°C]		200
Melting temperature t_f	[°C]	DIN 4102 part 17	≥ 1000

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Parameter	Unit	Methodology		Value	
Hydrothermal properties				thick 50 mm	thick 100 mm
Water permeability mod. K_f	[mm·min ⁻¹]	FLL		140	149
Maximum water capacity WK_{max}	[vol.%]	FLL		90.7	89.6
Water flow capacity in their plane at inclination at roof pitch q_{sg}	[l·m ⁻¹ ·s ⁻¹]	EN ISO 12958	inclination 0°	1.12	2.30
			inclination 2°	1.19	2.41
			inclination 35°	1.38	2.86
Chemical properties					
pH	-	according to Act No. 156/1998 Coll.			6.5–8.5
Decision on the registration of the substrate	-	according to Act No. 156/1998 Coll.			5510 ¹⁾
Other properties					
Volume weight dry	[kg·m ⁻³]	EN 1602		120	
Volume weight at maximum water capacity	[kg·m ⁻³]	EN 1602		1027	

¹⁾ Protocol on demand.

Parameter	Unit	Methodology	Value	Designation code
Environmental properties / impacts				
Volume of Pre-consumer recycled content for production	[%]	ČSN ISO 14021	55	
Volume of Post-consumer recycled content for production	[%]	ČSN ISO 14021	0	
Total use of non-renewable primary energy resources	[MJ /FU]	EN 15804+A1, ČSN ISO 14025	73.1	PENRT
Global Warming Potential	[kg CO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	7.13	GWP
Ozone Depletion	[kg CFC 11 ekv. /FU]	EN 15804+A1, ČSN ISO 14025	3.42 E-07	ODP
Acidification potential	[kg SO ₂ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.0507	AP
Eutrophication potential	[kg PO ₄ ³⁻ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00456	EP
Photochemical ozone creation	[kg C ₂ H ₄ ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00724	POPC
Abiotic depletion potential for non-fossil resources	[kg Sb ekv. /FU]	EN 15804+A1, ČSN ISO 14025	1.27 E-07	ADP-elements
Abiotic depletion potential for fossil resources	[MJ (Calorific value) /FU]	EN 15804+A1, ČSN ISO 14025	67.8	ADP-fossil fuels

FU = functional unit (1 m² of insulation by 50 mm thick for live cycle phases A1–A3).

RELATED DOCUMENTS

- Certificate CO/C - 244 - 2021/P
- ISO 9001, ISO 14001, ISO 45001, ISO 50001
- Environmental product declaration Isover Intense 2019
- FINAL PROTOCOL – substrate registration according to Act No. 156/1998 Coll., on fertilizers, as amended.
Registration decision number: 5510

1. 2. 2023 Information valid as of date of publication. The manufacturer reserves the right to change the data.