

## TECHNICAL SPECIFICATION

Insulating slabs with bevelled edges are made of ISOVER mineral wool with perpendicular fibres. The production is based on defibring method of the minerals composition melt and additional additives and ingredients. The mineral fibres produced are processed into the final slab shape on the production line and the edges are then trimmed by bevelling of 15 mm at a 45° angle. The entire fibre surface is hydrophobic and the fibres are perpendicular to the wall plane.

## APPLICATION

ISOVER Top V slabs with bevelled edges are suitable for interior wall and ceilings insulation, where they are fully glued on a sufficiently flat and bearing surface. These slabs placed regularly side by side in bond or broken bond can conceal minor irregularities in the underlay surface and create the effect of bossage. No surface layer is necessary, if dust is removed from the slab surface by vacuum cleaning. If surface treatment is required, exterior or interior paint can be sprayed on cleaned and primed slabs.

## PACKAGING, TRANSPORT, WAREHOUSING

ISOVER Top V insulation slabs are packed into the PE foil covered packets or as the packets on a pallet. ISOVER Top V is standardly delivered on pallets. Material have to be transported and stocked under conditions preventing their wetting or other degradation.

## BENEFITS

- up to 40% faster workability due to slab dimensions 1000 × 333 mm in comparison with standard lamella
- can be used without surface adjustment
- can be used without anchoring
- lesser time requirements than ETICS
- slabs can cover small surface bumps
- „bossage“ effect on ceiling
- high tensile strength (can be applied on ceilings)
- good thermal insulation performance
- 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 insect
- easy workability – can be cut, drilled into, glued, brushed, etc.



## DIMENSIONS AND PACKAGING

Thickness	[mm]	50*	60*	80*	100*	120*	140*	150*	160*	180*	200*
Length × width	[mm]	1000 × 333									
Volume per package	[pcs]	12	8	6	6	4	3	4	3	3	3
	[m <sup>2</sup> ]	4.00	2.66	2.00	2.00	1.33	1.00	1.33	1.00	1.00	1.00
Quantity per palette	[m <sup>2</sup> ]	0.200	0.160	0.160	0.200	0.160	0.140	0.200	0.160	0.180	0.200
	[m <sup>2</sup> ]	64.00	53.20	40.00	32.00	26.60	24.00	21.28	20.00	20.00	16.00
Declared thermal resistance R <sub>D</sub>	[m <sup>2</sup> ·K·W <sup>-1</sup> ]	1.25	1.50	2.00	2.50	3.00	3.50	3.75	4.00	4.50	5.00

\* It is necessary to consult with the producer for the terms of delivery.

## TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code
<b>Geometric shape</b>				
Length <i>l</i>	[% , mm]	EN 822	±2 %	
Width <i>b</i>	[% , mm]	EN 822	±1.5 %	
Thickness <i>d</i>	[% , mm]	EN 823	-1 % or -1 mm <sup>1)</sup> and +3 mm	Class of thickness tolerances T5
Deviation from squareness of the edge on length and width S <sub>D</sub>	[mm·m <sup>-1</sup> ]	EN 824	5	
Deviation from flatness S <sub>max</sub>	[mm]	EN 825	6	
Relative change in length Δε <sub>l</sub> , in width Δε <sub>b</sub> , in thickness Δε <sub>d</sub>	[%]	EN 1604	1	Dimensional stability under the specified temperature and humidity conditions DS(70.-)
<b>Thermal technical properties</b>				
Declared value of the thermal conductivity coefficient λ <sub>D</sub> <sup>2)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.040	
Design thermal conductivity λ <sub>T</sub> <sup>3)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	0.042	
Specific heat capacity c <sub>D</sub>	[J·kg <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	800	
<b>Mechanical properties</b>				
Compressive stress at 10% deformation σ <sub>10</sub>	[kPa]	Declaration according to EN 826	30	Declared level of compressive stress at 10% deformation CS(10)30
Tensile strength perpendicular to faces σ <sub>mt</sub>	[kPa]	Declaration according to EN 1607	30	Declared level of tensile strength perpendicular to faces TR30
<b>Fire safety properties</b>				
Reaction to fire class	[-]	Declaration according to EN 13501-1+A1	A1	
Maximum temperature for use	[°C]		200	
Melting temperature t <sub>f</sub>	[°C]	DIN 4102 part 17	≥ 1000	
<b>Hydrothermal properties</b>				
Short term water absorption W <sub>p</sub>	[kg·m <sup>-2</sup> ]	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 <sub>p</sub>	[kg·m <sup>-2</sup> ]	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
<b>Other properties</b>				
Density	[kg·m <sup>-3</sup> ]	EN 1602	65	

<sup>1)</sup> Whichever gives the greatest numerical tolerance.

<sup>2)</sup> Declared values were set under the following conditions (reference temperature 10 °C, humidity u<sub>dry</sub>, which is reached by drying) according EN ISO 10456.

<sup>3)</sup> It is 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.

## RELATED DOCUMENTS

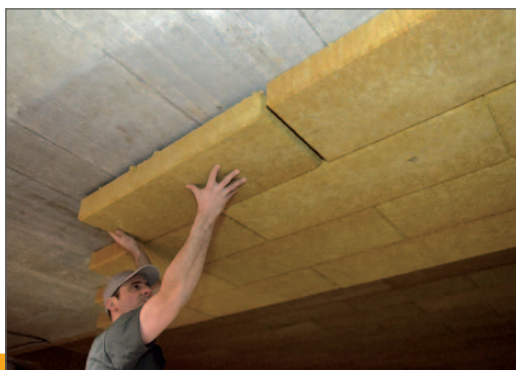
- Declaration of Performance CZ0001-049
- Environmental Product Declaration
- Certificate of constancy of performance 1390-CPR-312/11/P
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

## TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code
<b>Environmental properties / impacts</b>				
Non-hazardous waste disposed <sup>4)</sup>	[kg /FU <sup>5)</sup> ]	EN 15804+A1, ČSN ISO 14025	1.58	NHWD
Total use of non-renewable primary energy resources	[MJ /FU]	EN 15804+A1, ČSN ISO 14025	87.9	PENRT
Global Warming Potential	[kg CO <sub>2</sub> ekv. /FU]	EN 15804+A1, ČSN ISO 14025	7.96	GWP
Ozone Depletion	[kg CFC 11 ekv. /FU]	EN 15804+A1, ČSN ISO 14025	4.15 E-07	ODP
Acidification potential	[kg SO <sub>2</sub> ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.0559	AP
Eutrophication potential	[kg PO <sub>4</sub> <sup>3-</sup> ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00534	EP
Photochemical ozone creation	[kg C <sub>2</sub> H <sub>4</sub> ekv. /FU]	EN 15804+A1, ČSN ISO 14025	0.00831	POPC
Abiotic depletion potential for non-fossil resources	[kg Sb ekv. /FU]	EN 15804+A1, ČSN ISO 14025	1.6 E-07	ADP-elements
Abiotic depletion potential for fossil resources	[MJ (Calorific value) /FU]	EN 15804+A1, ČSN ISO 14025	80.9	ADP-fossil fuels

<sup>4)</sup> In this case it is standard mixed waste.

<sup>5)</sup> FU = functional unit (1 m<sup>2</sup> of insulation by 120 mm thick for live cycle phases A1-A3).



Example of product application ISOVER Top V