



# Isover Maxil

## Stone wool insulation

### TECHNICAL SPECIFICATION

Insulating slabs made of Isover mineral wool. 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. The entire fibre surface is hydrophobic. The slabs in the construction should be protected suitably against the weather effects (outer sheathing, alternatively diffusion foil).



### APPLICATION

Isover Maxil slabs are suitable for insulation of the outer walls of ventilated facade systems and are to be inserted into the grid under the cladding, or mechanically bonded into the multi-layer masonry. The slabs can be mechanically bond using the clamps for soft MW insulations. Insulating slabs are not glued to the surface. The material is suitable for fire protection system constructions where the density  $\geq 75 \text{ kg}\cdot\text{m}^{-3}$  is required.

**Superior thermal insulation material with  $\lambda_p = 0.034 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$ .**

### PACKAGING, TRANSPORT, WAREHOUSING

Isover Maxil insulation slabs are packed into the PE foil with package height up to 0.5 m. The slabs have to be transported in covered vehicles under conditions preventing their wetting or other degradation. The products are stored indoors or outdoors depending on the conditions specified in the current Isover price list.

### BENEFITS

- Very 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 insects.
- Easy workability – can be cut, drilled into, etc.
- Dimensional stability during temperature change.

### DIMENSIONS AND PACKAGING

Thickness [mm]	Length × width [mm]	Volume per package			Quantity per pallet [m <sup>2</sup> ]	Declared thermal resistance $R_d$ [m <sup>2</sup> ·K·W <sup>-1</sup> ]
		[pcs]	[m <sup>2</sup> ]	[m <sup>3</sup> ]		
30*	1200 × 600	14	10.08	0.32	120.96	0.85
40*	1200 × 600	10	7.20	0.29	86.40	1.15
50*	1200 × 600	8	5.76	0.29	69.12	1.45
60*	1200 × 600	7	5.04	0.30	60.48	1.75
80*	1200 × 600	5	3.60	0.29	43.20	2.35
100*	1200 × 600	4	2.88	0.29	34.56	2.90

\* Consult the producer for terms of delivery.

### TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code
<b>Geometric shape</b>				
Length $l$	[% , mm]	EN 822	±2%	
Width $b$	[% , mm]	EN 822	±1,5%	
Thickness $d$	[% , mm]	EN 823	-3% or -3 mm <sup>1)</sup> and +5 mm or +5 mm <sup>2)</sup>	Class of thickness tolerances T4
Deviation from squareness of the edge on length and width $S_b$	[mm·m <sup>-1</sup> ]	EN 824	5	
Deviation from flatness $S_{max}$	[mm]	EN 825	6	
Relative change in length $\Delta\epsilon_l$ , in width $\Delta\epsilon_b$ , in thickness $\Delta\epsilon_d$	[%]	EN 1604	1	Dimensional stability under the specified temperature and humidity conditions DS (23,90)

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Parameter	Unit	Methodology	Value	Designation code							
Thermal technical properties											
Declared value of thermal conductivity coefficient $\lambda_D^{2)}$	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.034								
Design thermal conductivity $\lambda_D^{3)}$	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	0.036								
Specific heat capacity $c_d$	[J·kg <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	800								
Fire safety properties											
Reaction to fire class	[-]	Declaration according to EN 13501-1+A1	A1								
Maximum temperature for use	[°C]		200								
Melting temperature $t_f$	[°C]	DIN 4102 part 17	≥ 1000								
Hydrothermal properties											
Water vapour diffusion resistance factor $\mu$	[-]	EN 13162+A1	1	Declared value for water vapour diffusion resistance factor	MU1						
Other properties											
Density	[kg·m <sup>-3</sup> ]	EN 1602	75								
Acoustic properties <sup>5)</sup>											
Practical sound absorption coefficient $\alpha_p$	[-]	EN 13162+A1	Level of practical sound absorption coefficient				AP				
		EN ISO 11654									
		Measurement according to EN ISO 354									
	Frequency		125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz			
	Thickness	40 mm	0.10	0.45	0.95	1.00	1.00	1.00			
		60 mm	0.20	0.80	1.00	1.00	1.00	1.00			
80 mm		0.40	1.00	1.00	1.00	1.00	1.00				
100 mm		0.50	1.00	1.00	1.00	1.00	1.00				
Weighted sound absorption coefficient $\alpha_w$ Noise reduction coefficient NRC	[-]	EN ISO 11654 (for NRC according ASTM C423)	Level of weighted sound absorption coefficient				AW				
		Single number value						$\alpha_w$			
		40 mm						0.75 (MH)			
	Thickness	60 mm	1.00				0.85				
		80 mm	1.00				0.95				
		100 mm	1.00				1.00				
Specific air flow resistivity $r$	Measurement according to EN ISO 9053-1		Level of air flow resistivity				AFr [kPa·s·m <sup>-2</sup> ]				
	Thickness	100 mm									
			32.9								

<sup>1)</sup> Value with greatest numerical tolerance.

<sup>2)</sup> Value with lowest numerical tolerance.

<sup>3)</sup> Declared values were set under the following conditions: (reference temperature 10 °C, humidity  $u_{dry}$  reached by drying) according to EN ISO 10456.

<sup>4)</sup> 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.

<sup>5)</sup> Informative non-declared value beyond the scope of CPR, obtained by specific tests.

## RELATED DOCUMENTS

- Declaration of Performance
- Certificate of constancy of performance
- Environmental Product Declaration
- ISO 9001, ISO 14001, ISO 45001, ISO 50001

2/1/2025 The information provided herein is valid at the time of publication. The manufacturer reserves the right to change the data.