



# Isover Unirol Plus

## Mineral fibreglass insulation

### TECHNICAL SPECIFICATION

Rolled insulation mats made of Isover fibreglass wool are covered with hydrophobic fibres on the entire surface. The production method is based on the fibering of glass melt and other additives and ingredients. The mineral fibres produced are processed into the final mat shape on the production line. The insulation in the construction should be protected (vapour-proof foil, suitable protection against dust setting in case of loosely laid insulation, additional construction layers).



### APPLICATION

Isover Unirol Plus rolls are suitable for unloaded thermal and acoustic insulation of pitch roofs especially with insertion between rafters and additional frame as well, into partition walls, wood ceilings insulations, false ceilings, and cavities.

### PACKAGING, TRANSPORT, WAREHOUSING

The Isover Unirol Plus rolls are strongly compressed between the package and wrapped with PE foil. They come in MPS packs (1MPS = 24 rolls, volume 4,09 m<sup>3</sup>). After unpacking, the rolls quickly acquire full thickness. Compressing makes manipulation easier and saves space in warehouses, during transport and on the construction site. Rolls have to be transported in covered vehicles under conditions preventing them from getting wet or being degraded. The products are stored indoors or outdoors depending on the conditions specified in the current Isover price list.

### BENEFITS

- Fire resistance.
- Very good thermal insulation performance.
- 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 <sub>D</sub> [m <sup>2</sup> ·K·W <sup>-1</sup> ]
		[pcs]	[m <sup>2</sup> ]	[m <sup>3</sup> ]		
100	6 000 × 1 200	1	7.20	0.72	172.80	2.80
120	5 000 × 1 200	1	6.00	0.72	144.00	3.40
140	4 300 × 1 200	1	5.16	0.72	123.84	4.00
160	3 800 × 1 200	1	4.56	0.73	109.44	4.55
180	3 300 × 1 200	1	3.96	0.71	95.04	5.10
200	3 000 × 1 200	1	3.60	0.72	86.40	5.70
220	2 700 × 1 200	1	3.24	0.71	77.76	6.24

### TECHNICAL PARAMETERS

Parameter	Unit	Methodology	Value	Designation code
<b>Geometric shape</b>				
Length <i>l</i>	[% , mm]	EN 822	±3 %	
Width <i>b</i>	[% , mm]	EN 822	±1,5 %	
Thickness <i>d</i>	[% , mm]	EN 823	-10 % or -10 mm <sup>1)</sup> and +10 mm or +10 mm <sup>2)</sup>	Class of thickness tolerances T3
Deviation from squareness of the edge on length and width <i>S<sub>e</sub></i>	[mm·m <sup>-1</sup> ]	EN 824	5	
Deviation from flatness <i>S<sub>max</sub></i>	[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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<b>Thermal technical properties</b>				
Declared value of thermal conductivity coefficient $\lambda_D$ <sup>3)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	Declaration according to EN 13162+A1 Measurement according to EN 12667	0.035	
Design thermal conductivity $\lambda_D$ <sup>4)</sup>	[W·m <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	0.038	
Specific heat capacity $c_D$	[J·kg <sup>-1</sup> ·K <sup>-1</sup> ]	ČSN 73 0540-3	840	
<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 $t_f$	[°C]	DIN 4102 part 17	< 1000	
<b>Hydrothermal properties</b>				
Water vapour diffusion resistance factor $\mu$	[-]	Declaration according to EN 13162+A1	1	Declared value for water vapour diffusion resistance factor MU1
<b>Other properties</b>				
Density	[kg·m <sup>-3</sup> ]	EN 1602	15.5	
<b>Acoustic properties<sup>5)</sup></b>				
Specific air flow resistivity $r$	[kPa·s·m <sup>-2</sup> ]	Declaration according to EN 13162+A1 Measurement according to EN ISO 9053-1	Level of air flow resistivity ≥ 5	AFr

<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
- ISO 9001, ISO 14001, ISO 45001

### More about the product

[www.isover.cz/en/products/isover-unirol-plus](http://www.isover.cz/en/products/isover-unirol-plus)



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