

Austrotherm

Thermal insulation board EPS 100

Product	Factory block-foamed and expanded polystyrene particle cell board (EPS according to ÖNORM B 6000) for the heat insulation of flat and roof.																														
Composition	Expanded polystyrene granulate.																														
Properties	Highly heat insulating, high dimensional accuracy, deformation and ageing resistance, non-shrinking, hardly flammable.																														
Application	Thermal insulation board for areas with high pressure loads (under floor, the flat roof, sloping roof, under floor heating, refrigerators)																														
Technical data	<table border="0"> <tr> <td>Name:</td> <td>EPS 100 (according to ÖNORM B 6000)</td> </tr> <tr> <td>Apparent density:</td> <td>18 - 24 kg/m³</td> </tr> <tr> <td>Compression strength:</td> <td>100 kPa = 10 t / m²</td> </tr> <tr> <td>Perm. Compressive strength:</td> <td>0.02 N / mm² = 2 t / m²</td> </tr> <tr> <td>Thermal conductivity λ_R:</td> <td>0.038 W/mK</td> </tr> <tr> <td></td> <td>0.27 [BTU in /ft².hr. °F]</td> </tr> <tr> <td>μ value:</td> <td>30 - 70</td> </tr> <tr> <td>Modulus of elasticity:</td> <td>5.0 N/mm² = 5000 kPa</td> </tr> <tr> <td>Supplied thicknesses:</td> <td>2 - 40 cm</td> </tr> <tr> <td>Format:</td> <td>100 x 50 cm</td> </tr> <tr> <td>Material consumption:</td> <td>2 boards/m²</td> </tr> </table> <table border="0"> <tr> <td>Behaviour in fire according to ÖNORM (Austrian standard) B 3800 Pt 1:</td> <td></td> </tr> <tr> <td>Combustibility grade:</td> <td>B1 – hardly flammable</td> </tr> <tr> <td>Smoking grade:</td> <td>Q3</td> </tr> <tr> <td>Fire according to EN 13501-1:</td> <td>E</td> </tr> </table>	Name:	EPS 100 (according to ÖNORM B 6000)	Apparent density:	18 - 24 kg/m ³	Compression strength:	100 kPa = 10 t / m ²	Perm. Compressive strength:	0.02 N / mm ² = 2 t / m ²	Thermal conductivity λ _R :	0.038 W/mK		0.27 [BTU in /ft ² .hr. °F]	μ value:	30 - 70	Modulus of elasticity:	5.0 N/mm ² = 5000 kPa	Supplied thicknesses:	2 - 40 cm	Format:	100 x 50 cm	Material consumption:	2 boards/m ²	Behaviour in fire according to ÖNORM (Austrian standard) B 3800 Pt 1:		Combustibility grade:	B1 – hardly flammable	Smoking grade:	Q3	Fire according to EN 13501-1:	E
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Classification according to the Chemical Substances Act	Not subject to labelling requirements																														
Storage	When storing the product, always protect against ultraviolet radiation (sun), the weather and mechanical damage.																														
Quality assurance	Internal quality assurance is provided by the manufacturer's plant, external checks are carried out by approved test institutes according to ÖNORM B 6000 .																														

Written and oral application technology recommendations provided by us to assist the seller/processor are based on our experience and reflect the current state of the art in science and practical application know-how. However, it is understood that these recommendations are non-binding. They do not create any legal relationship or any ancillary obligations in connection with the sale contract. They do not release the buyer from its obligation to verify the fitness of our products for the intended purpose or use by itself.

Thermal insulation board EPS-100

Thermal resistance (R) On the basis of ASTM C-518

Thermal conductivity $\lambda_R = 0.27$ [BTU in /ft².hr. °F]

Calculate of thermal resistance R [ft².hr. °F /BTU] :

$$R = d / \lambda_R$$

R - Thermal resistance R [ft².hr. °F /BTU]

d - Thickness of material [in]

λ_R - Thermal conductivity [BTU in /ft².hr. °F]

Thermal resistance of polystyrene EPS-F 100

Thickness of EPS-F 100 [in cm]	R [ft ² .hr. °F /BTU]
2 cm	2.9
5 cm	7.3
8 cm	12.0
10 cm	14.6
12 cm	17.5
15 cm	22.0
18 cm	26.3
20 cm	29.2
25 cm	36.50
30 cm	43.8

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