

Description

Refractory boards made from expanded vermiculite and special inorganic binder, which ensures high resistance to high temperatures and thermal shocks. The boards are harmless and do not contain any asbestos, glass or mineral fibers and organic ingredients.

Application

Grenamat AS is its nature intended for cladding and lining of furnaces and fireplaces, stoves and boilers and similar applications.

Trade mark		Grenamat AS							
Dimension (basic format)	mm	600 x 800, 610 x 1000				600 x 800	610 x 1000		
	in	23.6 x 31.5, 24.0 x 39,37				23.6x31.5	23.6x 15,7		
Bulk density (tol. ±10%)	EN 1094-4	kg/m ³	450	600	750	900	1050	1200	
		lb/ft ³	28.0	37.5	46.8	56.2	65.6	75,0	
Thickness		mm	20-100	15-100	8-50	8-30	12-25	10-30	
		in	0.79-3.94	0.59-3.94	0.31-1.97	0.31-1.18	0.46-1.00	0,39-1,18	
Porosity	EN 1094-4	%	84	79	73	69	64	48	
Thickness tolerance	EN 823	mm	±1,0						
		in	±0.04						
Dimensional tolerance	EN 822	mm	±5,0						
		in	±0.2						
Straightness tolerance	EN 822	mm/m	1,5						
		in/ft	0.02						
Bending strength	EN 993-6	N/mm ²	≥0,8	≥2,0	≥2,5	≥3,0	≥4,5	≥6	
		PSI	≥116	≥290	≥363	≥435	≥580	≥870	
Compressive strength	EN 826	N/mm ²	≥2,7	≥4,3	≥4,7	≥5,0	≥8,0	≥10,0	
		PSI	≥392	≥624	≥682	≥725	≥1160	≥1450	
Humidity ex-works	EN 322	%	≤2,5						
Reaction to fire class	EN 13501-1		A1, nehořlavá						
Classification temperature	EN 1094-6	°C	1100		1150				
		°F	2012		2102				
Thermal expansion		x10 ⁻⁶ /K	7,5						
		x10 ⁻⁶ /°F	4.16						
Linear shrinkage after 12h in 1000°C (1832 °F)	EN 1094-6	%	1,06						
Thermal capacity	EN 821-3	kJ/kg·K	0,89						
		BTU/lb·°F	0.21						
Thermal conductivity	ASTM C-201	W/mK	20 °C	0,14	0,17	0,19	0,20	0,22	0,30
			200 °C	0,16	0,18	0,20	0,21	0,23	0,31
			400 °C	0,18	0,20	0,21	0,22	0,24	0,32
			600 °C	0,20	0,21	0,22	0,23	0,25	0,33
			800 °C	0,22	0,22	0,23	0,24	0,26	0,34
			1 000 °C	0,24	0,24	0,24	0,24	0,27	0,35
		BTU·in/ h·ft ² ·°F	68 °F	0.97	1.25	1.32	1.39	1.53	2,14
			392 °F	1.11	1.25	1.39	1.46	1.59	2.23
			752 °F	1.25	1.39	1.46	1.53	1.66	2.32
			1 112 °F	1.39	1.46	1.53	1.59	1.73	2.41
			1 472 °F	1.53	1.53	1.59	1.66	1.80	2.50
			1 832 °F	1.66	1.66	1.66	1.66	1.87	2.59
Chemical analysis		%	SiO ₂ (46,48), Al ₂ O ₃ (11,43), TiO ₂ (0,93), Fe ₂ O ₃ (6,13), CaO (1,12), MgO (19,90), Na ₂ O (0,75), K ₂ O (12,76)						

Storage, handling and processing

Store in areas with temperature above 5°C and relative humidity of 65%. The material must be protected against direct impact of weather. When stacking is recommended to support the boards on a pallet or sufficiently thick under layer (approx. spacing 300 mm) so as to prevent deformation of the boards.

Pallets dimensions:

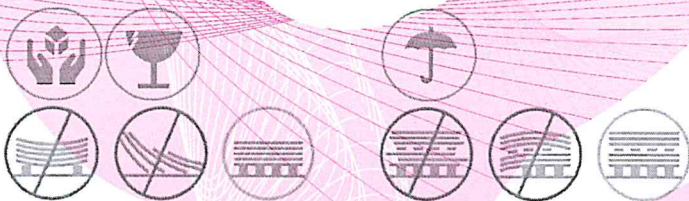
- format 600x800 – 810x1210mm (2 columns); height max. 1500mm (pallet incl.)
- format 610x1000 – 1010x1230mm (2 columns); height max. 1500mm (pallet incl.)

Transport conditions:

- DON'T STACK!!! transport in one layer

Processing of the boards is recommended at a temperature of 15 – 25°C and a relative humidity of 65%. Without adequate treatment is not appropriate to use the material in exterior applications and environments with relative humidity above 65%. When installing the board it is necessary to prevent condensation of water vapor on the surface of the material and exclude direct contact with water.

Material processing can be performed by conventional woodworking tools.



REACH

Manufacturer Grena, a.s., Veselí nad Lužnicí declares that the above mentioned product is not contained substance on the list of dangerous substances, SVHC (Substances of Very High Concern), published by the European Chemicals Agency (ECHA) on its website.

DECLARATION OF HEALTH

Manufacturer Grena a.s., Veselí nad Lužnicí declares that the designated product is free of asbestos and mineral fibers.

Manufacturer Grena, a.s., Veselí nad Lužnicí declares that the board Grenamat AS are objects, which means they are under the current wording of the European Parliament and Council Regulation (EC) no. 1907/2006 on the registration, evaluation, authorization and restriction of chemical substances, as amended Commission Regulation (EC) no. 987/2008 and Commission Regulation (EU) no. 453/2010 exempted from registration and thus the obligation of issuing safety data sheets.

CE 1020, EN 15501

Our technical consultants are always ready to answer you specific questions and advise you with the product application according to your needs. The information in this sheet is based on practical experience, as well as on tests and reflects our current state of knowledge. They serve as information and does not contain any assurance of product properties or their suitability for specific applications. Try for yourself whether our product is suitable for your purposes.

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