

## Description

Grenaisol, Grenaisol Arcus and Grenaisol PRO are made of exfoliated vermiculite and special inorganic binder, which ensures a high thermal shock resistance and high insulation capacity. The boards are used to build fireplace and stove surrounds as construction and insulation material in one or insulation of accumulating stoves. The boards are free of asbestos, glass and mineral wool.

Name			Grenaisol			Grenaisol Arcus	Grenaisol PRO	
Basic format		mm	600 x 800 610 x 1000			90 x 600	600 x 1200 800 x 1200	
Thickness		mm	30	40	50	40	30	40
Density	EN 1094-4	kg/m <sup>3</sup>	430 ±5 %				475 ±10 %	
Porosity	EN 1094-4	%	85				83	
Tolerance of thickness	EN 823	mm	±1,0				±1,0	
Tolerance of format	EN 822	mm	±5,0				±1,0	
Straightness tolerance	EN 822	mm/m	1,5				1,0	
Squareness tolerance	EN 822	mm/m	2,0				1,0	
Modulus rupture	EN 993-6	N/mm <sup>2</sup>	≥0,6				≥0,7	
Compressive strength	EN 826	N/mm <sup>2</sup>	≥1,4				≥1,5	
Humidity at shipment	EN 322	%	≤2,0				≤2,5	
Reaction to fire	EN 13501-1	-	A1, non-combustible					
Classification temperature	EN 1094-6	°C	950					
Thermal conductivity	ASTM C-201							
20 °C		W/mK	0,14					0,14
200 °C			0,16					0,17
400 °C			0,18					0,19
600 °C			0,20					0,22
800 °C			0,21					0,21
Heat capacity	EN 821-3	kJ/kgK	0,95					
Water Vapour Diffusion Resistance Factor (μ)	EN 12086	-	9,1					
Thermal expansion (20-700 °C)	ČSN 72 6031	m/mK	7,5 x10 <sup>-6</sup>					
Linear shrinkage after 12h at 700°C		%	0,66					
Thickness determination of insulation layers acc.to DIN 18892		9 mm thickness of Grenaisol board compensates insulation from 10 mm of wall and 10 mm of mineral wool. According to AGI Q132.						
Thickness determination of insulation layers acc.to DIN 18892		7,1 mm thickness of Grenaisol board compensates insulation from 10 mm of mineral wool. According to AGI Q132.						
Chemical composition								
	SiO <sub>2</sub>	%	46,48					
	Al <sub>2</sub> O <sub>3</sub>		11,43					
	TiO <sub>2</sub>		0,93					
	Fe <sub>2</sub> O <sub>3</sub>		6,13					
	CaO		1,12					
	MgO		19,90					
	Na <sub>2</sub> O		0,75					
	K <sub>2</sub> O		12,76					



## STORAGE, HANDLING AND PROCESSING

Store in areas with a temperature above 5 °C and relative humidity 65%. The material must be protected against the 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 Grenaisol boards.

Packing– Grenaisol boards are packed on wooden pallets a protection board on the base and top, covered with tape x2. The pallet is wrapped around with stretching foil.

Pallets – do not stack!!!

Grenaisol, Grenaisol Arcus and Grenaisol PRO are designed for indoor installation after completion of wet construction processes (do not include finishing wet processes like painting etc.).

Material processing can be performed by conventional woodworking tools.



## REACH

Manufacturer Grena Inc., 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 mineral fibers and organic ingredients.

Manufacturer Grena as Veselí nad Lužnicí declares that the boards Grenaisol 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.



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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