



**grenamat<sup>®</sup> AS**  
refractory - insulation  
vermiculite boards

Highly effective and eco-friendly  
refractory - insulation system  
that provides clean and efficient  
combustion in fireplaces, stoves,  
pellet stoves and solid,  
gas and oil fuel boilers.  
Service temperature  
up to 1 150 °C (2 102 °F)

**100%**  
environmentally  
friendly

Cost-efficient  
and energy  
saving  
material



tested  
and certified



## Technical information

Metric			US/British		
Dimension [mm]	Thickness* [mm]	Density [Kg/m³]	Dimension [in]	Thickness* [in]	Density [lb/ft³]
2440 x 1220	10 - 40	500 - 800	96 x 48	0.40 - 1.60	31.21 - 50
1000 x 610	10 - 100	400 - 900	39.40 x 24	0.40 - 3.94	25 - 56.20
800 x 600	10 - 100	400 - 1 050	31.50 x 23.60	0.40 - 3.94	25 - 65.55

\* Thicker board possible by gluing

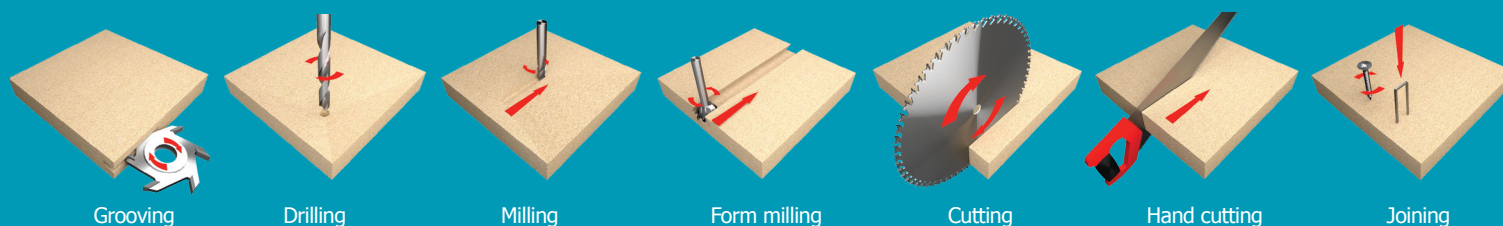
	Metric	US/British		
Reaction to fire class acc. to EN 13501-1	A1, non combustible			
Classification temperature acc. To EN 1094-6	1 100 - 1 150 °C	2 012 - 2 102 °F		
Thermal conductivity at 200 °C (392 °F) acc. to ASTM C-201	Density [kg/m³]	W/mK	Density [lb/ft³]	BTU-in/h-ft²·°F
	450	0.16	28	1.11
	600	0.18	37.50	1.25
	750	0.20	46.80	1.39
	900	0.21	56.20	1.46
Heat capacity acc. to EN 821-3	Density [kg/m³]	kJ/kg·K	Density [lb/ft³]	BTU/lb°F
	400 - 1 050	0.89	25 - 65.55	0.21
Linear shrinkage after 12h at 1000 °C (1832 °F) acc. to EN 1094-6				
	%			
				1.06

## What is Classification Temperature?

It is the maximum temperature at which permanent dimensional changes of boards are not more than 2%.

Moulded shapes, different dimension, designs and densities available on request.

For more information please contact our GRENAMAT® specialist at [grenamat@grena.cz](mailto:grenamat@grena.cz).



## Working with Grenamat® AS boards

The composition of Grenamat® AS allows clean and dustless work and very easy cutting and shaping with common woodworking tools.

## Grenamat® AS refractory - insulation vermiculite boards

Nowadays deterioration of the environment requires innovation and development of heating systems and combustion technologies. Grenamat® AS emerges an answer to this challenge by being an effective solution that allows improving combustion technologies by upgrading the processes, reducing the emissions as well as the impact on the environment and at the same time providing cost saving. Grenamat® AS is an eco-friendly material with an excellent insulation value that allows increasing the temperature in the combustion chambers, improving the efficiency and supporting a clean combustion. Also in consequence, with Grenamat® AS is less fuel is required to generate the same heat that would generate a combustion chamber lined with classical materials.



Vermiculite is a natural inorganic mineral, which is non-combustible, does not represent any hazard to health and has an important environmental value. When it is exfoliated it becomes a very light and insulating material. Together with the high technological pressing process GRENA, a.s. has developed and the special inorganic binder forms very stable boards and shapes that can stand in direct contact with flames up to 1 150 °C (2 102 °F). With very low thermal conductivity, excellent resistance to thermal shock and mechanically very stable even at high temperatures, it constitutes a material with high tolerance to the stress inside of combustion chambers with countless advantages.

The high quality raw materials and the advanced technology involved in the production of Grenamat® AS results in a material with a very smooth and homogenous surface and color which contributes aesthetically to the different equipment where it is used, improving its appearance into more modern and sophisticated. Not to forget, and also interesting, Grenamat® AS is significantly lighter compared with fireclay bricks, refractory concretes and cast iron, using Grenamat® AS allows you to reduce the weight of your equipment notably, making the manipulation and installation of your linings and equipment easier.

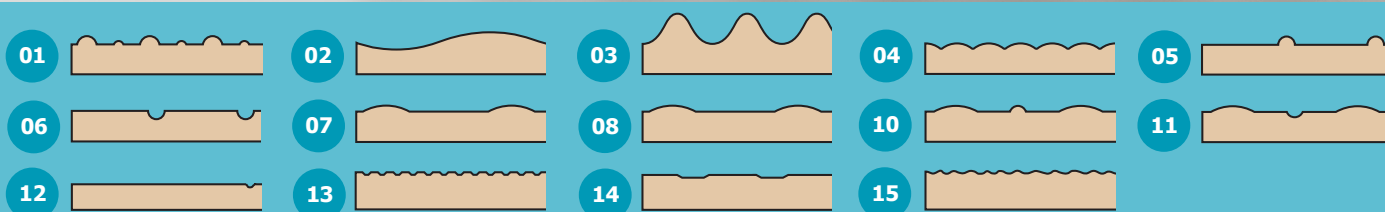


# grenamat® AS

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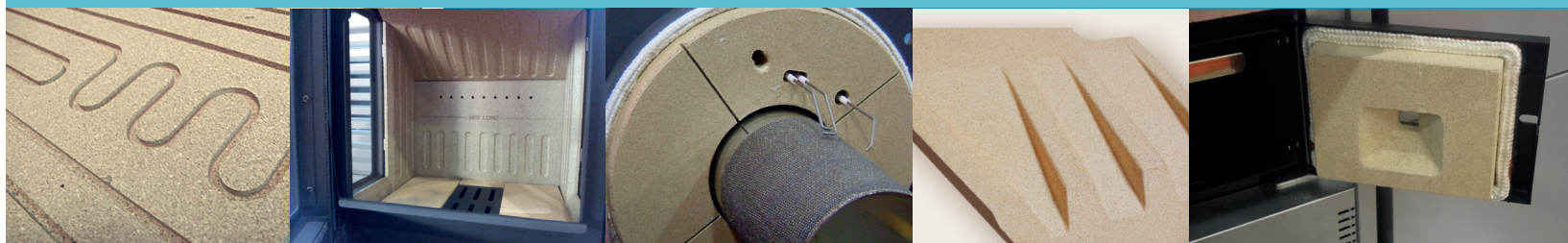
Pressed design on the surface of boards, size 800 x 600 or 1000 x 610 mm (39,40 x 24 or 31,50 x 23,60 in).



## Different types of pressed surfaces for your stove and fireplace

We offer 14 basic types but we are able to produce to your own design. Please send us your plans.

For different parameters (thickness and density) contact us at [grenamat@grena.cz](mailto:grenamat@grena.cz) or to our Grenamat® specialists.



## Create your own design

You can personalize your combustion chamber or fireplace insert with the great surfaces options that Grena offers.

You can also send us your ideas and let your imagination fly, we will take care of making your dreams come true.

We are looking forward to cooperating with you.



## Why is Grenamat® AS the perfect solution for you?

- ✓ **Tested and certified** CE
- ✓ **High quality:** exclusive raw materials and high technology
- ✓ **Efficiency:** Improves the combustion performance
- ✓ **Environmentally friendly:** Reduces the emissions, 100% natural materials in the product
- ✓ **Cost saving:** reduces fuel (wood, gas or oil) and time needed to reach high temperatures
- ✓ **Safety material:** Non – combustible and extraordinary resistant to high temperature and thermal shock
- ✓ **Lighter and easier to install:** reduces the weight and time involved in the mounting and operation
- ✓ **Improves the way the equipment look:** more modern products
- ✓ **Flexibility:** diversity of sizes, thicknesses, densities, shapes and designs and very easy to work with
- ✓ **Harmless to health:** Grenamat® AS is asbestos, mineral and glass fibers FREE

## Applications:

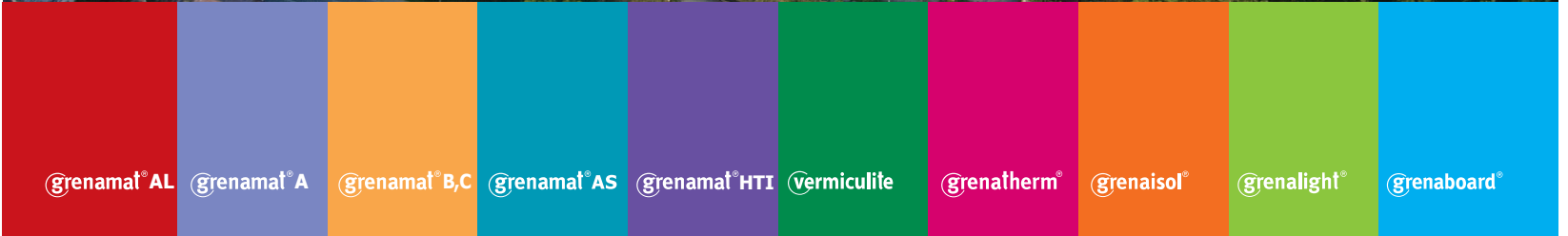
Grenamat® AS is the perfect solution to use in:

- ✓ **fireplaces**
- ✓ **stoves**
- ✓ **pellet stoves**
- ✓ **boilers (gas, oil and solid fuel)**
- ✓ **chimneys**
- ✓ **night storage heaters**
- ✓ **heat exchangers**
- ✓ **cooking equipment, etc.**





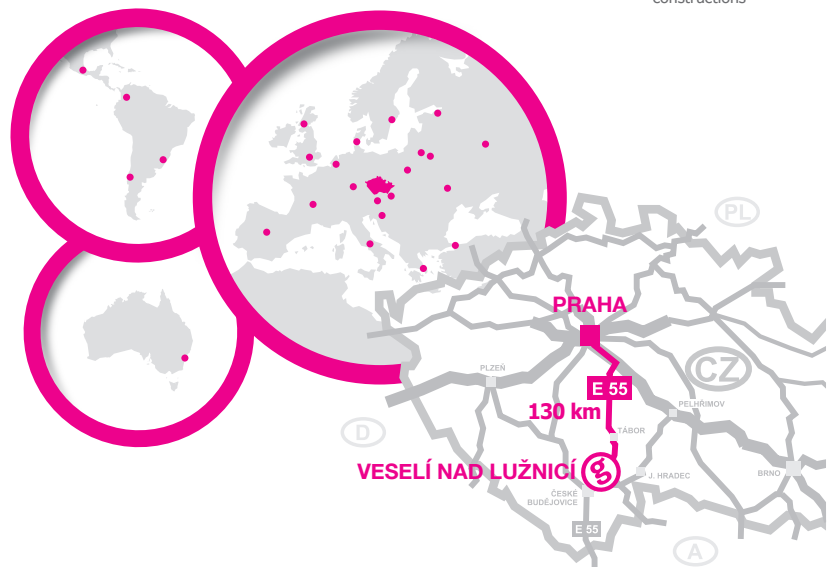
Grena, a.s. is a well experienced manufacturer of vermiculite boards for different industries around the world with more than 20 years of experience.



**Grenamat® AL**   **Grenamat® A**   **Grenamat® B,C**   **Grenamat® AS**   **Grenamat® HTI**   **Exfoliated vermiculite**   **Grenatherm®**   **Grenaisol®**   **Grenalight®**   **Grenaboard®**

- Grenamat® AL**  
Self-supporting air-condition pipeline  
  
Self-supporting smoke and heat extraction duct  
  
Fire protection of carbon lamellas (CFRP)  
  
Fire-resistant panels with a surface finish HPL, CPL, veneer or paper  
  
Fire-resistant acoustic panels
- Grenamat® A**  
Certified boards for wall and ceiling used for ship construction
- Grenamat® B and Grenamat® C**  
Boards suitable for fillings of fire-resistant safety doors
- Grenamat® AS**  
Refractory insulation boards and components for fireplaces and stoves
- Grenamat® HTI**  
Insulation boards for high-temperature applications
- Exfoliated vermiculite**  
Exfoliated vermiculite available in five fractions
- Grenatherm®**  
Radiant structural board for fireplace surrounds
- Grenaisol®**  
Structural insulation boards for fireplace surrounds
- Grenalight®**  
Light insulation board for fireplace surrounds
- Grenaboard®**  
Non-combustible boards for the protection of ceiling constructions

**WE'RE ON FIRE**  
FOR NON-COMBUSTIBILITY



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