

PROVEN SYSTEM OF STRUCTURAL, INSULATING AND HEAT RADIANT MATERIALS

FOR FIREPLACE SURROUNDS

AND THEIR FINAL SURFACE FINISHING



(grenatherm[®]

(grenacontrol® (grenacoat®







Dustless



Easy machinable



Heat radiant



Recyclable



Harmless to health



Natural



Durable











Tested and certified

	Thickness
© Trans less l®	Density
grenaisol	Reaction to fire class acc. to EN 13501-1
	Classification temperature acc. To EN 1094-6
Harmless to health	Thermal conductivity acc. to ASTM C-201
Construction and insulation boards	200 °C (392 °F)
insulation boards	400 °C (752 °F)
	600 °C (1 112 °F)
	800 °C (1 472 °F)
	Heat capacity acc. to EN 821-3
	Linear shrinkage after 12h at 700 °C (1 292 °F) acc. to EN 1094-6

GRENAISOL®

600 x 800 mm

GRENAISOL® GRENAISOL® PRO 610 x 1 000 mm 600 x 1200 mm

GRENAISOL® PRO 800 x 1200 mm

GRENAISOL® Arcus 40 x 90 x 600 mm min. radius 175 mm

GRENAISOL® properties

GRENAISOL® is a high quality construction and insulation board to build the fireplace surround in a simple, fast and safe way which guarantees a safe and efficient heating. The board is at the same time, light but stable and it is made of 100 % harmless to health natural materials. GRENAISOL® offers a very low thermal conductivity and the security of using a non-combustible material with resistance to high temperatures and thermal shock. It releases no fumes or smell even at high temperatures.

The composition of GRENAISOL® allows clean and dustless work and very easy cutting with common woodworking tools. To reduce the time needed to build a fireplace surround, you can use screws and the fire resistant glue Grena®Klebepaste to significantly save the time and materials needed for the construction. For building the fireplace surround you can combine GRENAISOL® boards with GRENATHERM® boards to reach direct the insulation and heat where they are needed according to the situation.

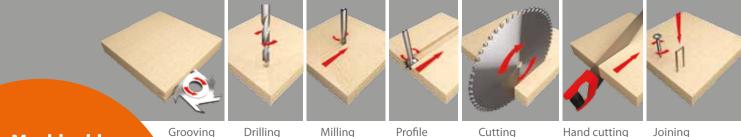
Why to use GRENAISOL®?

- **High quality:** exclusive raw materials and high technology
- Environmentally friendly: produced exclusively from natural materials

mm 30 40 50 kg/m 475, 480 A1 950 °C W/Mk 0.16 0.18 0.20

kJ/kg∙K 0.95 0%

- **Cost saving:** reduces drastically time and materials needed to build the fireplace surround
- Safety material: Non combustible and extraordinary resistant to high temperature and thermal shock
- **Lighter and easier to install:** one person can manipulate the boards easily
- Flexibility: very simple to work with and you can combine GRENAISOL®, GRENATHERM®, and GRENACOAT® systems
- ✓ **Harmless to health:** GRENAISOL[®] is asbestos, mineral and glass fibers FREE



Machinable with common woodworking tools

Grooving

Drilling

Profile milling Cutting

Hand cutting

Joining







grenaisol Construction and insulation board

Fireplace surround system with GRENAISOL®

With GRENAISOL® you can quickly build a highly efficient fireplace surround with different types of shapes that offer security and reliability. Thanks to high adherence of GRENAISOL® and GRENATHERM® surface you can apply mortar and plaster easily and more quickly. For surface finish Grena, a.s. recommends the GRENACOAT® system which is specially developed to provide the best performance of the GRENAISOL® and GRENATHERM® surround systems.

You can also use GRENAISOL® to protect areas from heat sources or combined with accumulation systems, for example:

Behind stoves and fireplaces



Behind heat accumulating systems



Grenaisol Construction and insulation board

(grenaisol[®]

Construction and

grena[®] Klebepaste

up to 1 150 °C

grenaisol[®] Arcus

grenacontrol[®] Inspection door

> Stove mortar Stove plaster

(grenacoat[®]

Universal fire resistant glue

Construction and insulation

component with a lock

Heat resistant fabric mesh

for rounded shapes

insulation board



Cost-effective fireplace surround system with one board



Thickness	mm		
THICKNESS	25		
Density	kg/m ³		
Delisity	750		
Reaction to fire class acc. to EN 13501-1	A1		
Classification temperature acc. To EN 1094-6	950 °C		
Thermal conductivity acc. to EN ISO 8894-1	W/Mk		
200 °C (392 °F)	0.32		
400 °C (752 °F)	0.33		
600 °C (1 112 °F)	0.35		
800 °C (1 472 °F)	0.38		
Heat capacity acc. to EN 821-3	kJ/kg∙K		
near capacity acc. to EN 021-5	0.95		
Linear shrinkage after 12h at 700 °C (1 292 °F)	%		
acc. to EN 1094-6	0.37		

GRENATHERM® 600 x 1 200 mm

GRENATHERM® properties

GRENATHERM® is an innovative construction and heat radiant board developed for building the fireplace surround. It provides easier and faster transference of heat through the whole surface of the board. GRENATHERM® board not only has excellent mechanical properties but it is also made of 100 % harmless to health natural materials and therefore it is a perfect solution to provide a quick and safe radiant heat and comforting warm.

The high quality raw materials and the advanced technology involved in the production of GRENATHERM® provides a very smooth and strong board that is non-combustible and has resistance to high temperatures and thermal shock. It releases no fumes or smell even at high temperatures. The composition of GRENATHERM® allows clean and dustless work and very easy cutting with common woodworking tools. To reduce the time needed to build a fireplace surround, you can use screws and the fire resistant glue Grena®Klebepaste to significantly save the time and materials needed for the construction.

Why to use radiant heat?

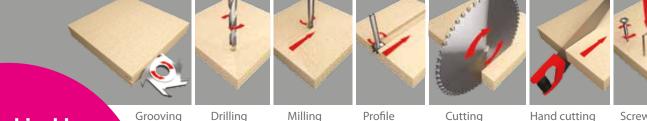
- Radiant heat is healthy, natural, pleasant and comfortable.
- It warms objects, walls, people, but not the air between.
- Radiant heat cannot be aired out.

With GRENATHERM® you can built:

- Heat radiant fireplace surround without added heat accumulating elements
- · Heat radiant fireplace surround with a built-in heat accumulating element
- Heat radiant fireplace surround with built-in heat accumulating element and insert with heat accumulating set

Why to use GRENATHERM[®]?

- **Cost saving:** reduces drastically time and materials needed to build the fireplace surround
- **High quality:** exclusive raw materials and high technology
- Safety material: Non combustible and extraordinary resistant to high temperature and thermal shock
- Environmentally friendly: produced from natural materials only
- Flexibility: very easy to work with and you can combine GRENAISOL®, GRENATHERM®, and GRENACOAT® systems
- Lighter and easier to install: one person can manipulate the boards easily.
- Harmless to health: GRENATHERM® is asbestos, mineral and glass fibers FREE

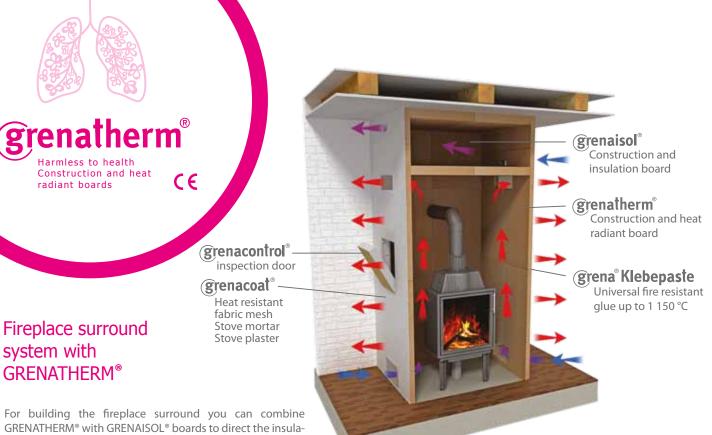


Machinable with common woodworking tools

milling

Screwing, coupling





tion and heat where they are needed according to the situation.

Thanks to high adhesion of GRENATHERM® and GRENAISOL® surface you can apply mortar and plaster easily and more quickly. For surface finish Grena, a.s. recommends the GRENACOAT® system which is specially developed to provide the best performance of the GRENAISOL® and GRENATHERM® surround systems.

When to opt for GRENATHERM®?

- If fast and radiant heat is required, the GRENATHERM® system is the ideal solution
- If a quick construction for a reasonable price is required · If the requirement does not allow dustiness and the accumulation system is required

You can also use GRENATHERM® combined with accumulations system, for example:

Fireplace surround with built-in accumulation and fireplace insert Fireplace surround with a built-in accumulation and fireplace insert with an accumulation set





built-in

set

accumulation and fireplace insert with an accumulation

and fireplace insert

built-in accumulation

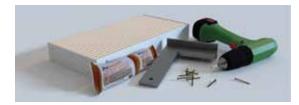


Access to the fireplace surround system with GRENAISOL® and GRENATHERM®

Quick and simple but safety access to the fireplace surround
For simple replacement of parts
For cleaning the interior of the fireplace surround

Description

- Dimension: 500 x 400 mm, 400 x 300 mm, 444 x 220 mm, 444 x 444 mm
- GRENACONTROL® Universal you can change the opening direction of the door
- Invisible system of opening
- Only 1 mm gap around the door, invisible door
- Same surface as the fireplace surround
- Easy and quick installation for the enclosure
- Tested to work with the GRENAISOL® and GRENATHERM® systems and to work at high temperatures













enaco Improved program provides stability, durability and

prevents from formation of cracks. **(***(*

PERLINKA, special heat resistant fabric mesh for stove makers

It resist repetitive temperature fluctuations up to 550°C and prevent cracking. Combined with the WHITE 600 mortar, it forms the ideal base layer for further modifications of fireplace surrounds and thermal insulations where GRENAISOL® and GRENATHERM® boards are used.

Packaging: Roll 50 x 1,1 m -







(grena[®] klebepaste

Universal glue for high temperatures up to 1 200 °C

GRENA®KLEBEPASTE is an inorganic glue which can be used in high temperatures and does not release any fumes. GRENA®KLEBEPASTE has been specially developed to glue the GRENAISOL®, GRENATHERM® boards to build the fireplace surround systems.

GRENA®KLEBEPASTE is water soluble, soiled tools can be washed with water

MODEL stove plaster

Fine white plaster which has no influence on heat circulation and can withstand temperatures up to 190 °C. The plaster can be applied in layers up to 50 mm and is ideal for modelling cornices, flattening surfaces and creating variously surfaces style to the fireplace surround. It is recommended to use WHITE 600 mortar together with the heat resistant fabric mesh PERLINKA as a base layer.

grenacoat

Packaging: 20 kg/5 kg

grenacoat





White adhesive mortar designed mainly as a support layer for the heat resistant fabric mesh PERLINKA. It can also be used for bonding tiles onto fireplaces and stoves surround constructions. This mortar is flexible, resistant to thermal shocks and sticks well to most of stove materials. It is applied in layers up to 20 mm and it hardens in approximately 40 minutes. WHITE 600 is the best money-saving and reliable solution for areas up to 600 °C.

Packaging: 20 kg

FINISH smooth stove plaster

grenacoa

Fine white plaster for creating a smooth final layer of plastered parts of fireplaces and stoves. It has no influence on heat circulation and can withstand temperatures up to 190 °C. The FINISH plaster is applied in one layer from 2 to 6 mm. It is recommended to use the FINISH plaster together with the WHITE 600 mortar and with the special heat resistant fabric mesh PERLINKA as a base layer.

Packaging: 20 kg/5 kg

ST-H coarse stove plaster

White plaster for surface finishing with a rougher texture (grain up to 1.5 mm). It has no influence on heat circulation and can withstand temperatures up to 190° C. The ST-H plaster is applied in a layer from 5 up to 15 mm and it is suitable for exterior use too (outdoor fireplaces and grills).

It is recommended to use the ST-H plaster together with the WHITE 600 mortar and with the special heat resistant fabric mesh PERLINKA as a base layer.

Packaging: 20 kg/5 kg

HAFTAK refractory mortar

grenacoal

Mortar designed especially for spaces that are in the direct contact with flames. It resists temperatures up to 1 100 °C The HAFTAK Mortar is suitable for fixing stove tiles and fireclay plates, for filling of the fireclay linings or

repairing their surface. Packaging: 20 kg/5 kg



Complete verified system

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

vermiculite	(grenamat [∗] A	€grenamat [®] AL	(grenamat [®] AS	€grenamat [®] C	(grenamat [™] HTI	grenaisol°	@renatherm*	@renaboard®	(grenacoat°
Exfoliated vermiculite available in five fractions	Certified boards for walls and ceilings used for ship construction	air-condition pipeline Self-supporting smoke and heat extraction duct Fire protection of	Refractory insulation boards and components for fireplaces and stoves	Boards suitable for fillings of fire-resistant safety doors	Vermiculite insulation boards for high- temperature applications	structural insulation boards for fireplace surrounds	Radiant structural board for fireplace surrounds	Non- combustible boards for the protection of ceiling construction	Surface finish system for Grenaisol® and Grenatherm® enclosures
		carbon lamellas (CFRP) Fire-resistant panels with a surface finish HPI CPL, veneer or paper Fire-resistant acoustic panels	-1					152	(P)
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g	ena [®] a.s.	Třída Čs. armá Tel.: +420 381	dy 541, 391 81 Vo 549 111	eselí nad Lužnicí	II, Czech Republi e-m	c www.grenan nail: grenamat@gr	ena.cz		MPRTKATAA23G-ENG