

THERMAX® S 400 / S 500 / S 600

Thermal insulation stones / Refractory insulating bricks

THERMAX® thermal insulation bricks are used in industrial furnace and firing system construction for thermal insulation. Due to the good thermal insulation up to high temperature ranges, furnace systems can be lined at low cost. The good thermal shock resistance allows the use in the back insulation as well as the installation on the hot face.

THERMAX® thermal insulation bricks have good resistance to acids and in atmospheres containing CO and CH.



Technical specifications

THERMAX®		S 400	S 500	S 600
Classification temperature	°C	1100	1100	1100
Bulk density (DIN EN 1094-4)	kg/m ³	400	500	600
Modulus of Rupture (DIN EN 993-6)	MPa	0.5	1.1	2.0
Cold Crushing Strength (DIN EN ISO 8895)	MPa	1.2	1.9	3.1
Thermal conductivity (ASTM C201-C182)	200 °C	0.15	0.16	0.17
	400 °C	0.18	0.18	0.19
	600 °C	0.22	0.22	0.23
Thermal Shrinkage (DIN EN 1034-6)	% / nach 12h bei 1100 °C	< 2	< 2	< 2
Thermal expansion linear (DIN 51045)	% / 20 – 800 °C	0.65	0.65	0.65

Fields of application

THERMAX® thermal insulation bricks are used in furnaces and plants for heat treatment with low mechanical stress. They are particularly suitable in continuously operated plants such as:

- Plants in the ceramics industry such as batch-type furnace, shuttle and tunnel kilns
- Aluminium soaking pit furnace
- Coke ovens
- Cracking furnaces and process plants in the petrochemical industry
- Combustion chamber lining

THERMAX® thermal insulation bricks are sawn, milled or drilled with standard woodworking tools. During processing, only little dust is generated.

THERMAX® thermal insulation stones can be bricked up with **Techno-Adhesive HT 1100**. The adhesive should be applied as sparingly as possible and the joint width should not exceed 1 mm. The consumption is 2.5 kg/m² surface. **Techno-Adhesive HT 1100** is available in 25 kg buckets.

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Chemical composition (weight %) according to DIN EN ISO 12677, RFA

Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	MgO	K ₂ O
11	50	4	23	10

Further details

Tolerance (length/width)	± 2.5 mm
Tolerance (thickness)	± 1.5 mm

Standard formats (w/h/d)	NF1/30	230 x 114 x 30 mm	1440 bricks / pallet
	NF1/50	230 x 114 x 50 mm	864 bricks / pallet
	NF1	230 x 114 x 64 mm	648 bricks / pallet
	NF1/76	230 x 114 x 76 mm	576 bricks / pallet
	NF2/30	250 x 124 x 30 mm	1280 bricks / pallet
	NF2/50	250 x 124 x 50 mm	768 bricks / pallet
	NF2	250 x 124 x 64 mm	576 bricks / pallet
	NF2/76	250 x 124 x 76 mm	512 bricks / pallet

Full and half vaults and other shapes and sizes are available on request.

Advantages

THERMAX® thermal insulation bricks are based on silicate-bonded exfoliated Vermiculite, which are manufactured in a pressing process.

THERMAX®

- uncompromising in sustainability, safety and health
- natural product – correctly sorted 100% recyclable
- toxicologically safe
- no outgassing
- sterile (thermally treated raw material)
- odourless
- skin-friendly
- non-combustible A1
- dimensionally stable
- resistant to ageing
- fibre-free
- easy and low-dust handling and processing
- your first choice if you want to use TPGreen SOLUTIONS in heating technology

