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3R4400HT

MBOARD

The 3R4400HT boards are manufacture from low biopersistent superwool bulk fibers, refractory fillers, organic and inorganic binders. These boards offer an excellent thermal and physical performance in high-temperature applications. It is a good alternative to traditionnal solutions due to is high refractories and excellent non-wetting characteristics with molten aluminum. The 3R4400HT provides stability and resistance to most types of chemical attack. Thermal and physical properties are restored after drying.

Thin boards are easily die-cut and all boards can be cut with a hacksaw blade allowing precise shapes to be made. It can be storage in low heat conditions. It has a very low thermal conductivity.

The superwool low biopersistent fibres with which the 3R4400HT board is made are not classified as carcinogenic.

The 3R4400HT boards offer the highest classification temperature up to 1300°C (2370°F). It is specially designed for application up to 1000°C (1830°F) requiringcycling resistance and high mechanical performances as in domestic boilers.

APPLICATIONS

Good thermal shock resistance allows use in applications with large varaitions in temperature. The 3R4400HT can be used in direct contact with flame.

This board can be used in the folowing applications: molten aluminum contact, furnace, kiln and oven hot face linings, flue and chimney linings, insulation as backup to firebrick, insulating firebrick, refractory monolithics and rammed shapes and for appliance and heat processing insulatiion.

SPECIFICATIONS

Physical properties

Color	**Tan**
Nominal density, kg/m³ (pcf)	**360 (22.46)**
Maximum temperature rating	**1300°C (2370°F)**
Continuous use limit	**1000°C (1830°F)**
Melting point	**1760°C (3200°F)**
Modulus of rupture, Mpa (psi)	**1.4 (203)**
Compressive strenght, psi (Mpa)	

@10% deformation, Mpa (psi)	0.3 (43.5)
Permanent linear shrinkage, %, 24 hrs	
1150°C (2100°F)	1.6
Thermal conductivity, W/m·K (BTU·in/hr·ft²·°F) (ASTMC201)	
200°C (392°F)	0.05 (0.35)
400°C (752°F)	0.08 (0.56)
600°C (1112°F)	0.11 (0.76)
800°C (1472°F)	0.15 (1.04)
1000°C (1832°F)	0.2 (1.39)
1200°C (2192°F)	0.26 (1.80)

N.B. The information, details and values indicated are to the best of our knowledge. We recommend to conduct tests according to local conditions. The data is subject to some variations without notice.