Thermal Ceramics Superwool 607 PM Board

Product Information



Superwool 607 PM boards are processed from a slurry consisting of Superwool bulk and organic binders. This board product is noted for its excellent surface finish, thickness uniformity and high insulating value at elevated temperatures.

Superwool provides stability and resistance to chemical attack. Exceptions include hydrofluoric acid, phosphoric acid and strong alkalies (i.e. NaOH, KOH). Superwool is unaffected by incidental spills of oil or water. Thermal and physical properties are restored after drying.

The non-wetting characteristics of the Superwool 607 PM Board composition make is an excellent alternative for molten aluminum contact.

Туре

Alkaline Earth Silicate (AES) wool CAS number: 329211-92-9

Features

- Continuous temperature rating of 1832°F
- · Low thermal conductivity and heat storage
- Very close thickness tolerance
- Excellent surface finish and uniformity
- · Easily fabricated and die-cut

Applications

- · Appliance and heat processing equipment insulation
- Combustion chamber construction for domestic appliance construction
- Heat shields
- High temperature gaskets and seals
- · Back-up insulation to dense refractories

Product Information

Physical properties	
Continuous use limit, °F (°C)	1832 (1000)
Density, pcf, (kg/m³)	15 - 17 <i>(</i> 240 - 272)
Color	beige
Melting point, °F (°C)	2327 (1275)
Modulus of rupture, psi (kg/cm ²)	200 - 250 <i>(14 - 18)</i>
Compressive strength, psi	
@ 5% deformation	15-25
@ 10% deformation	25-40
Linear shrinkage, %	
24 hrs @ 1800°F	1.0
Thickness, in. <i>(cm)</i>	1⁄2 - 6 (1.25 - 15)
Standard sizes, in <i>(cm)</i>	24 x 36 <i>(60 x 90)</i>
	24 x 48 <i>(60 x 120)</i>
	36 x 48 <i>(90 x 120)</i>
	42 x 48 <i>(105 x 120)</i>
Chemical Composition	
Silica, SiO₂	67
Calcium, CaO	27
Magnesium, MgO	5
Other	1
Loss of ignition, LOI	2 - 4
Thermal Conductivity	
BTU•in./hr•ft²•°F <i>(w/m•k)</i> , ASTM C 201	
Mean temperature, 4 pcf	
@ 500°F (260°C)	0.40 (1.08)
@ 1000°F <i>(538°C)</i>	0.62 (1.68)
@ 1500°F <i>(816°C)</i>	0.99 (2.68)

Chemical Properties

A small amount of combustible organic binder will burn out at approximately 300°F. Caution should be exercised during the initial heating. Adequate ventilation should be provided to avoid potential flash ignition of the binder out-gassing and to avoid air entry while at elevated temperature.

The values given herein are typical average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Therefore, the data contained herein should not be used for specification purposes. Check with your Thermal Ceramics office to obtain current information.

This product may be covered by one or more of the following patents or foreign equivalents: US5332699, US5714421, US5811360, US5821183, US5928975, US5955389, US5994247, US6180546, EP0906250, GB2348640. A list of foreign patent numbers is available upon request to The Morgan Crucible Company plc. Thermal Ceramics, Superwool and 607 are trademarks of The Morgan Crucible Company plc.

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