

Pyrotek Insural® 85 MASTIC Insulating Mastic for Aluminum contact Applications

Categories: [Ceramic](#); [Oxide](#); [Silicon Oxide](#)

Material Notes: Insural® 85 MASTIC is an asbestos-free, durable and insulating refractory composition designed for the fabrication of launders and jointing, bedding and patching of precast refractory shapes.

Advantages



- User-friendly workability
- Low shrinkage reduces pull-out from joints
- High strength reduces the risk of erosion of repaired areas and joints
- Not wetted by molten aluminum

Information provided by Pyrotek.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Density	<u>0.820</u> - <u>0.880</u> g/cc	<u>0.0296</u> - <u>0.0318</u> lb/in ³	fired density (compressed)
	<u>1.45</u> - <u>1.55</u> g/cc	<u>0.0524</u> - <u>0.0560</u> lb/in ³	wet density (as supplied)
Loss On Ignition	35 - 40 %	35 - 40 %	

Mechanical Properties	Metric	English	Comments
Modulus of Rupture	<u>0.00350</u> - <u>0.00400</u> GPa	<u>0.508</u> - <u>0.580</u> ksi	dried 24 hours @ 120°C
	<u>0.00280</u> - <u>0.00350</u> GPa @Treatment Temp. 750 °C, Time 86400 sec	<u>0.406</u> - <u>0.508</u> ksi @Treatment Temp. 1380 °F, Time 24.0 hour	

Thermal Properties	Metric	English	Comments
Thermal Conductivity 	<u>0.160</u> W/m-K @Temperature 200 °C	<u>1.11</u> BTU-in/hr-ft ² -°F @Temperature 392 °F	
	<u>0.200</u> W/m-K @Temperature 400 °C	<u>1.39</u> BTU-in/hr-ft ² -°F @Temperature 752 °F	
	<u>0.240</u> W/m-K @Temperature 650 °C	<u>1.67</u> BTU-in/hr-ft ² -°F @Temperature 1200 °F	
Maximum Service Temperature, Air	<u>1000</u> °C	<u>1830</u> °F	Continuous
Shrinkage 	<= <u>1.0</u> % @Temperature 120 °C, Time 86400 sec	<= <u>1.0</u> % @Temperature 248 °F, Time 24.0 hour	
	<= <u>2.0</u> % @Temperature 750 °C, Time 86400 sec	<= <u>2.0</u> % @Temperature 1380 °F, Time 24.0 hour	fired 24 hours @ 750°C

<= 2.5 %
@Temperature 1000 °C,
Time 86400 sec

<= 2.5 %
@Temperature 1830 °F,
Time 24.0 hour

fired 24 hours @ 1000°C

Component Elements Properties	Metric	English	Comments
Al2O3	20 %	20 %	
SiO2	75 %	75 %	

Descriptive Properties

72 Hour Cup Test 7075 Alloy No Reaction / Excellent 815°C

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Available Properties

- Density, fired density (compressed)
- Density, wet density (as supplied)
- Loss On Ignition
- Modulus of Rupture, dried 24 hours @ 120°C
- Modulus of Rupture
- Thermal Conductivity
- Thermal Conductivity
- Thermal Conductivity
- Maximum Service Temperature, Air, Continuous
- Shrinkage
- Shrinkage, fired 24 hours @ 750°C
- Shrinkage, fired 24 hours @ 1000°C
- Al2O3
- SiO2

Property Data

This page displays only the text of a material data sheet.

To see MatWeb's complete data sheet for this material (*including material property data, metal compositions, material suppliers, etc*), please click the button below.

