

Superwool® Moldable

Datasheet Code US: 5-14-1013

Product Description

Superwool Moldable is a mixture of Superwool low biopersistent fiber, inorganic binders, and fillers which produces an insulating product with a semi-sticky consistency that is non-wetted by molten aluminum. This pliable, low shrinkage, putty-like, and non-RCF fiber mix is ideal for applications such as penetration seals, aluminum trough linings, and for patching refractory cracks and fissures.

Features

- Non-wetting to molten aluminum
- Ready to use
- Easy to apply
- Air dries and hardens
- Semi-sticky for good adhesion

Applications

- Trough linings for aluminum and other non-ferrous metals
- Metal stud protection
- Patching mix for fiber and refractory products

Handling

Pails should be kept sealed to avoid hardening. Normal shelf life is minimum twelve months in unopened containers that have been properly stored.

Drying and Firing

Superwool Moldable dries to form a hard mass. Drying and firing conditions are dependent on the mass and geometry of the installed Superwool Moldable.

To speed drying, the recommended practice is to force dry at 200 - 300°F (93 - 149°C) with a major uncovered surface exposed and adequate ventilation provided. Generally overnight drying is sufficient for thicknesses 1" - 2" (25 - 51 mm).

Installation Information

Superwool Moldable may be installed with plastic gloves, trowels, spatulas, or a caulking gun. It is easily smoothed to the desired contour by water-wetting the forming tool and molding to shape. Excessive wetting will increase drying shrinkage.

Availability

Products	1 gallon pail	5 gallon pail	11 oz caulking tube	32 oz caulking tuber
Kaowool Moldable	X	X	X	X
Kaowool Moldable AR	X	X	X	X

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 Morgan Advanced Materials office to obtain current information. This product may be covered by one or more patents or foreign equivalents: A list of patent numbers is available upon request to Morgan Advanced Materials plc.

Superwool® Moldable

Mastics Product Name	<u>Superwool Moldable</u>
Fiber Class	AES
Material Grade	Moldable
Physical Properties	
Color	light brown
Continuous Use Temperature, °F	2000
Continuous Use Temperature, °C	1093
Classification Temperature, °F	2100
Classification Temperature, °C	1149
Density, dried @ 230°F, pcf	56
Denisty, dried @ 110°C, kg/m ³	895
Density, wet, pcf	97
Denisty, wet, kg/m ³	1550
Solids, %	49
Shelf life, months	12
Modulus of Rupture, MOR, dried, psi	
230°F	270
Modulus of Rupture, MOR, dried, MPa	
110°C	1.9
Modulus of Rupture, MOR, fired, psi	
2000°F	180
Modulus of Rupture, MOR, fired, MPa	
1093°C	1.2
Modulus of Rupture - Bond Strength, MOR, psi	
air drying	180
Modulus of Rupture - Bond Strnegth, MOR, MPa	
air drying	1.2
Hot Gas Erosion Resistance	
ft/sec	>200
m/sec	>61
Compressive strength @ 10% deformation, dried, psi	
230°F	125
Compressive strength @ 10% deformation, dried, MPa	
110°C	0.86
Compressive strength @ 10% deformation, fired, psi	
2000°F	250
Compressive strength @ 10% deformation, fired, MPa	
1093°C	1.7
Permanent Linear Shrinkage, %, 24 hours	
2000°F (1093°C)	-1.3

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Mastics Product Name	<u>Superwool Moldable</u>
Chemical Analysis, % weight basis after firing	
Alumina, Al ₂ O ₃	20
Silica, SiO ₂	65
Calcium oxide + Magnesium oxide, CaO + MgO	13
Other	<3
Thermal Conductivity, BTU•in/hr•ft², per ASTM C201	
500°F	0.7
1000°F	1
1500°F	1.3
Thermal Conductivity, W/m•K, per ASTM C201	
260°C	0.1
538°C	0.14
816°C	0.19

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