

Kaowool® Moldables

Datasheet Code US: 5-14-1010

Product Description

Kaowool Moldables are composed of ceramic fibers, organic polymers, inorganic binders, and other proprietary ingredients. They are pliable, low shrinkage, putty like material that is supplied wet and premixed, ready for installation. They have been specially formulated to provide a smooth texture and enhanced flowability. These properties allow successful application in thin sections and through a caulking apparatus.

Kaowool Moldable AR is specially formulated to provide a very strong and hard material that is non-wetting to molten aluminum. It is an ideal material for use in troughs and launders.

Features

- Pliable, putty-like materials
- Installation ready
- Suited for use as a high temperature caulking, sealing, and finishing product

Applications

- Reheat Furnaces
- Forge Furnaces
- Heat-treating
- Annealing furnaces
- Kilns

Aluminum Resistant Cup test

707.5 alloy, 1500°F (816°C), 72 hours no penetration

Availability

<u>Products</u>	<u>1 gallon pail</u>	<u>5 gallon pail</u>	<u>11 oz caulking tube</u>	<u>32 oz caulking tuber</u>
Kaowool Moldable	X	X	X	X
Kaowool Moldable AR	X	X	X	X

<u>Mastics Product Name</u>	<u>Kaowool Moldable</u>	<u>Kaowool Moldable AR</u>
Fiber Class	RCF	RCF
Material Grade	Moldable	Moldable
<u>Physical Properties</u>		
Color	light brown	light brown
Continuous Use Temperature, °F	1900	1800
Continuous Use Temperature, °C	1038	982
Classification Temperature, °F	2000	1800
Classification Temperature, °C	1093	982
Density, dried @ 230°F, pcf	28-30	55-60
Denisty, dried @ 110°C, kg/m ³	448-480	881-962
Density, wet, pcf	70-75	100-105
Denisty, wet, kg/m ³	1121-1201	1602-1683
Shelf life, months	12	6

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 Advance Materials plc.

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Mastics Product Name	Kaowool Moldable	Kaowool Moldable AR
Aluminum Resistant cup test		
1500°F (816°C), 707.5 alloy, 72 hours	No penetration	No penetration
Modulus of Rupture, MOR, dried, psi		
230°F	-	438
1000°F	-	434
1500°F	-	442
1800°F	-	465
Modulus of Rupture, MOR, dried, MPa		
110°C	-	3.02
538°C	-	2.99
816°C	-	3.05
982°C	-	3.21
Compressive strength @ 5% deformation, dried, psi		
230°F	-	300
1000°F	-	300
1500°F	-	300
1800°F	-	300
Compressive strength @ 5% deformation, dried, MPa		
110°C	-	2.07
538°C	-	2.07
816°C	-	2.07
982°C	-	2.07
Permanent Linear Shrinkage, %, 24 hours		
230°F (110°C)	-	-1
500°F (260°C)	-	-1.5
1000°F (538°C)	-0.1	-2.3
1500°F (816°C)	-0.2	-2.3
1800°F (982°C)	-	-3.1
2000°F (1093°C)	-2.7	-
Chemical Analysis, % weight basis after firing		
Alumina, Al ₂ O ₃	26-30	29-32
Silica, SiO ₂	67-72	64-67
Other	1-2	3-5
Thermal Conductivity, BTU·in/hr·ft², per ASTM C201		
500°F	0.5	0.7
1000°F	0.7	1
1500°F	1	1.3
Thermal Conductivity, W/m·K, per ASTM C201		
260°C	0.07	1
538°C	0.1	0.14
816°C	0.14	0.19

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