

SILICA MOLDABLE TYPE RS-SI MOLDABLE

ZIRCAR Refractory Composites, Inc. produces a comprehensive range of advanced high performance ceramic-ceramic composites and related products. Our materials are used around the world in demanding thermal, structural and electrical insulating applications at temperatures from 600°C(1112°F) to 1650°C(3002°F). For over twenty-five years we have been a problem solver working with many industries to resolve their thermal management problems. We have developed materials that have become industry standards for induction melting, forging and heat-treating applications, investment casting, glass processing, hot pressing, as well as many high temperature electrical applications.

GENERAL INFORMATION

ZRCI Silica Moldable Type RS-Si Moldable is a wet blanket that is a combination of high purity amorphous silica fibers and inorganic silica binder. Upon drying Type SI Moldable becomes a rigid structure with useful properties to temperatures of 1100°C(2012°F).

Type RS-SI Moldable exhibits good wet handleability. It is easily cut with scissors or a knife and can be applied directly to equipment with complex contours. It can also be used to fabricate flat sheets or boards. Drying can be accomplished in an oven, with a hot air gun or torch, or by exposure to heat in the application. Removal of water renders Type RS-SI Moldable permanently rigid.

Type RS-SI Moldable exhibits excellent resistance to attack by most chemicals with the exception of caustics. It will tolerate all acids except hydrofluoric acid. It is not wet by molten aluminum and is useful in many applications where Refractory Ceramic Fiber is not desired.



CHARACTERISTICS & PROPERTIES

Nominal Fired Composition, wt %	
SiO ₂	99
Color	White
Solids Content, as supplied, %	53
Bulk Density, dried, g/cc(pcf)	0.64(40)
Loss On Ignition Of Dried Material, 1000°C(1832°F), %	3 - 4
Maximum Use Temperature*, C(F)	1100(2012)
Melting Temperature of Fiber, C(F)	1698(3000)
Fiber Diameter, micron	6 - 9
Linear Shrinkage [‡] , %	
As supplied to dry at 105°C(222°F)	0 - 1
dried and fired 24 hrs. at 1000°C(1832°F)	5 - 7

* Maximum use temperature is dependent on variables such as stresses, both thermal and mechanical, and the chemical environment that the material experiences.

‡ Properties expressed perpendicular to thickness.

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SUGGESTED APPLICATIONS

- Transport of Molten Non- Ferrous Metals
- Trough and Launder Liners.
- Furnace Repair
- Furnace Door linings and Seals.
- Expansion Joint Seals.
- Glass Furnace Crown Insulation.
- Insulation Wrap for High Temperature Process Piping.
- High Temperature Gasketing.
- High Temperature Kiln and Furnace Insulation.
- Self Supporting Mold Wrap.
- Fabrication into Rigid Silica Fiber Boards and Cylinders.
- Useful any where Refractory Ceramic Fibers Are Not Desired.

AVAILABILITY

Item #	Description
HS50	RS-SI, 24" X 36" X 1/8"
HS51	RS-SI, 24" X 36" X 1/4"
HS52	RS-SI, 24" X 36" X 1/2"
HS53	RS-SI, 24" X 36" X 3/4"
HS54	RS-SI, 24" X 36" X 1"

Note: These products can be further processed to provide finished sizes. Processes such as slitting, cutting, die punching and CNC machining are available upon request. Larger sizes are available upon request..



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