



# Alumina Type SALI Moldable

## General Information

ZIRCAR Ceramics' Alumina Type SALI Moldable is a ready-to-use, moist, moldable combination of polycrystalline  $Al_2O_3$  fibers and high-purity ceramic binders. It exhibits a consistency of clumpy modeling clay. When dried and fired it exhibits properties close to ZIRCAR Ceramics' Alumina Type SALI and delivers excellent high-temperature stability, low thermal conductivity, and good thermal shock properties for use up to 1700°C (3092°F). SALI Moldable is nearly neutral in pH and does not attack or corrode most materials that it contacts. Wearing rubber or plastic gloves during placement is recommended.

See application information on page 2.

SALI Moldable has a shelf life of approximately 12 months and should not be allowed to dry out or freeze.



## Characteristics & Properties

Typical Composition, %	
$Al_2O_3$	80
$SiO_2$	20
Bulk Density, nominal, dried, g/cc (pcf)	0.64 (40)
Maximum Use Temperature*, °C (°F)	1700 (3092)
Melting Point, °C (°F)	1927 (3500)
Color	
As Supplied	Light Green
Fired	White
Solid Content, %	>42
pH	6.5 - 7.0
Drying Shrinkage, Volume%	< 20
Firing Shrinkage, †% after 24 hrs at 1700°C (3100°F)	< 3

The data presented herein is intended to help the user to determine the appropriateness of this material for their application.

This data is a nominal representation of this product's properties and characteristics and therefore should not be used in preparing specifications.

\* 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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Technical Data Bulletin  
Alumina Type SALI Moldable  
[www.zircarceramics.com](http://www.zircarceramics.com)  
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## Suggested Applications

General high-temperature low-mass furnace lining repair with use to 1700°C (3092°F).

Molding compound for forming simple shapes such as furnace tube plugs and Al<sub>2</sub>O<sub>3</sub> crucible supports.

## Availability of Standard SALI Moldable

ITEM #	DESCRIPTION
A18110	SALI MOLDABLE, 1 GAL
A18111	SALI MOLDABLE, 5 GAL

## To Order

**Standard SALI Moldable:** order online or specify quantity, item # and description.

Standard items are available for immediate shipment from stock.

**Custom** package sizes of SALI Moldable are available on request.

## Use Instructions

SALI Moldable is easily placed into holes and cracks in low-mass thermal insulation systems. It can be shaped into freeform or molded configurations using molds & hand building techniques. Building up desired thickness should be done in layers as high thickness drying shrinkage can be expected. Following this technique will help in the elimination of voids resulting in maximum dried and fired strength.

SALI Moldable contains water that must be dried out prior to use. Best practice is to dry at 95°C-110°C (200°F-230°F). Drying duration will depend upon thickness, with thicker application requiring more time than a thin layer. A good rule of thumb is 2 hours for every 1/4in. of thickness. When used to repair cracks or fill holes in low-mass furnaces, multiple applications may be required and they should be dried by warming the furnace between applications. Repairs will cure during first firing of the furnace. When constructing parts, non-porous molds should be used. Good handling and bonding strength is achieved during drying, however additional strength may be achieved by firing the part at 1094°C-1370°C (2000°F-2500°F), for 2-3 hours.

Containers should be kept sealed to prevent hardening. Should the moldable appear too dry, a small amount of water or Alumina Rigidizer/Hardener Type AL-R/H may be added.



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