

Foundry Service & Supplies, Inc.

FUSED SILICA
HOT PRESS PLATENS
CASTABLE CERAMICS
FIRED SHAPES
AEROSPACE TOOLING

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HI-TEMP INSULATIONS
CALCIUM SILICATE BOARDS
MILLBOARD AND BLANKET
PAPERS AND CEMENTS
CUTTING AND FABRICATING

ATM-2000 FUSED SILICA CASTABLE

Technical Data:

Physical Properties: (Typical)

	English Units	SI Units
Maximum Service Temperature	2000°F	1093°C
	<u>lb/ft³</u>	<u>g/cc</u>
Dry Weight Required for Casting	115	1.84
Approximate Amount of Water Required Per 55 Lbs. Per 24.95 Kg.	5 ½ U.S. Pints	2.60 Liters
	<u>lb/ft³</u>	<u>g/cc</u>
Bulk Density After Drying at 230°F (110°C)	119	1.91
	<u>lb/in²</u>	<u>MPa</u>
Modulus of Rupture After Drying at 230°F (110°C) After Heating at 1500°F (816°C)	1000 1100	6.9 7.6
Crushing Strength After Drying at 230°F (110°C) After Heating at 1500°F (816°C)	6000 5400	41.4 37.2
Permanent Linear Change, % After Drying at 230°F (110°C) After Heating at 1500°F (816°C) After Heating at 2000°F (1093°C)		Negligible -0.1 -0.2

Chemical Analysis: (Approximate) (Calcined Basis)

Silica	(SiO ₂)	80.9 %
Alumina	(Al ₂ O ₃)	15.5
Titania	(TiO ₂)	Trace
Iron Oxide	(Fe ₂ O ₃)	Trace
Lime	(CaO)	3.5
Magnesia	(MgO)	Trace
Alkalies	(Na ₂ O+K ₂ O)	0.1

(Continued)

ATM-2000 (Continued)

All data are based on mechanical mixing and cast specimens. ASTM procedures, where applicable, used for determination of data. Standard deviations are shown where sufficient statistical data is available. All data are subject to reasonable variations and should not be used for specification purposes.

Description: **ATM-2000** contains higher levels of high purity fused silica as the main ingredient. A high purity, hydraulic setting cement is used as the binder. This castable features volume stability, thermal shock resistance, and low thermal conductivity.

Features: This castable is designed for easy placement in inaccessible places and for shapes that are difficult to manufacture by conventional methods.

Uses:

Some of the uses for this Castable include:

Aircraft Tooling	Hearths and Furnace Walls
Brazing Tools	Kiln and Furnace Doors
Precision Special Shapes	Burner Blocks and Ports
Heat Treat Plates	Stack Liners
Non-Ferrous Hot Metal	Discharge Rings
Troughs	Coke Oven Doors, Flues
Chemical Reactor Liners	Car Tops
Incinerators	

Surface configuration, chemistry and temperature conditions will dictate the choice of castable. Contact your Foundry Service representative for assistance in selection.

Shipping Data: Shipped in 55 pound-net weight (24.95 Kg.) multi-wall moisture-resistant sacks.

WARNING: IF PROPER PROCEDURES FOR PREPARATION, APPLICATION AND HEAT-UP OF THIS MATERIAL ARE NOT OBSERVED, STEAM SPALLING DURING HEAT-UP MAY OCCUR.