



BNZ Materials, Inc.

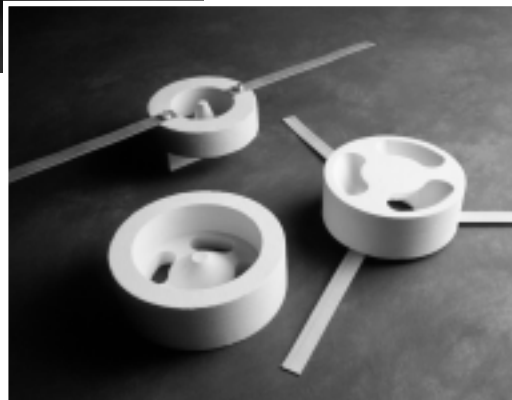
Marinite® A50

Refractory Products

**Inorganic board insulation
to handle and form aluminum**



Marinite A50 is especially suited for machinable shapes such as floats, spouts, hot tops and baffles.



Marinite A50 is a strong, machinable, non-asbestos inorganic board insulation for handling and forming aluminum and other non-ferrous metals up to approximately 1350°F (732°C). It's most distinguishing feature is a density of 50 lbs/ft³ (800 kg/m³).

Marinite A50 takes all the best attributes of Marinite A — strength, dimensional stability, durable wear-resistant surface — and provides them at a lower density, with better insulating characteristics, less out-gassing and better machinability.



Marinite® A50

Refractory Products

Inorganic board insulation to handle and form aluminum

Description

Marinite A50 is a structural-insulating board made of the latest technology refractory raw materials, for a very consistent finished product ideally suited for conveying and controlling the flow of aluminum.

Manufactured for greater life and improved machining characteristics. High heat treatment removes excess water and minimizes shrinkage that would normally occur in service.

Uses

Widely used for floats, spouts, launders, headers, distribution boxes, baffles, tips, stoppers, orifice plates, hot tops and ingot mold liners. Also in the metal handling and containing systems of many casting machines.

Advantages

This unusual board material has many outstanding advantages. Metals do not adhere to it, even when they cool and solidify, so skull can be easily removed. It requires no foundry facing wash, and does not lead to contamination of the metals. Molten metals are conveyed with less heat loss, so stay at a more uniform temperature, and therefore can be handled at a lower temperature. It also has the lowest outgassing and oil absorption of any calcium silicate used for this application.

Marinite A50 is both crack- and shock-resistant, and offers cost efficiency through a longer service life than most other non-asbestos products.

Note: When casting begins, a slight bubbling usually occurs, but it is of short duration. It can happen even though the boards have been oven dried prior to casting. This is due to the expansion of air in the surface pores of the material when the hot molten metal comes in contact with it.

Even after heat treatment, this board may regain a small amount of moisture from the atmosphere. For this reason, it should be kept in a warm, dry area prior to use.

Technical Assistance

BNZ Materials, Inc. and its fabricators are eager to work with you on your specific applications.

Warranty

BNZ Materials warrants that its products are manufactured in accordance with its applicable material specifications and are free from defects in workmanship and materials using BNZ's specifications as a standard. Every claim under this warranty shall be deemed waived unless in writing and received by BNZ within thirty (30) days of the date the defect was discovered and within one (1) year of the date of the shipment of the product.

BNZ MAKES NO OTHER REPRESENTATION OR WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, IN FACT OR IN LAW, INCLUDING WITHOUT LIMITATION, THE WARRANTY OF MERCHANTABILITY OR THE WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, OTHER THAN THE LIMITED WARRANTY SET FORTH ABOVE.

Properties

	Marinite A50
Density pcf (kg/m ³)	50 (800)
Modulus of Rupture psi (kg/cm ²)	1,000 (70)
Shrinkage 24 hrs @ 1350°F (732°C) Length/width, % Thickness, %	0.4 0.9
Moisture Content (as received), %	2.5
Total Weight Loss @ 1350°F (732°C), %	
Screw Holding Strength (normal), lbs (kg) @ 7/8" penetration	200 (91)
Compressive Strength psi (kg/cm ²) Ultimate load	2,280 (161)
Thermal Conductivity Mean Temperature, Btu-in/ft ² , hr, °F (W/m ² K) 800°F (425°C) 1000°F (538°C)	
Size Furnished trimmed, nominal 4' x 8' (1219 x 2438 mm) 4' x 4' (1219 x 1219 mm) 2' x 4' (610 x 1219 mm)	
Thicknesses 1/2" (12.7 mm) 1 1/2" (38.1 mm) 3/4" (19.05 mm) 2" (50.8 mm) 1" (25.4 mm) 3" (76.2 mm)	

Note: The physical and chemical properties of BNZ's Marinite A50 represent 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.



BNZ Materials, Inc.

Marinite® A50 Plant Location

Billerica

400 Iron Horse Industrial Park
North Billerica, MA 01862
Phone: **978-663-3401**
800-888-0061

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Insulating Fire Brick Plant Locations

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www.bnzmaterials.com

BNZ Materials manufactures and is a world-wide supplier of a range of specialty industrial insulations. Our calcium silicate insulation has been manufactured continuously at Billerica, Massachusetts for more than 60 years.

In addition to our calcium silicate product line, BNZ also manufactures Insulating Fire Brick and refractory specialties at the world's most advanced IFB plant located in Zelienople, PA. Over sixteen types of IFB are available for use in applications from 2000°F to 3200°F to meet the specific needs of a variety of industries.

Contact BNZ for more information on these products and their applications.



Limitation of Liability

It is expressly understood and agreed that the limit of BNZ's liability shall be the resupply of a like quantity of non-defective product and that BNZ shall have no such liability except where the damage or claim results solely from breach of BNZ's warranty.

IT IS ALSO AGREED THAT BNZ SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL, OR OTHER DAMAGES FOR ANY ALLEGED NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY, OR ANY OTHER THEORY, OTHER THAN THE LIMITED LIABILITY SET FORTH ABOVE.