



# BNZ Materials, Inc.

# High-Alumina Brick

## Refractory Products

BNZ Materials, Inc., in partnership with Tata Refractories Limited (Jamshedpur, India), provides high quality refractory products to a variety of industries.



Tata Refractories is India's leading and most modern refractory manufacturing company, with growing strength in global markets bearing testimony to more than forty years of

experience and expertise in technology. Their extensive high-alumina refractory line offers a range of compositions for use in the aluminum smelting, iron, steel, glass, chemical, and petroleum refining industries. Additional products are also available for other applications.

Contact BNZ Materials, Inc. for special refractory requirements.

### Typical and Average Data of High-Alumina Bricks

Brand Name	Al <sub>2</sub> O <sub>3</sub> (%) Min.	Fe <sub>2</sub> O <sub>3</sub> (%) Max.	B.D. (gm/cc) Min.	CCS (kg/cm <sup>2</sup> ) Min.	A.P. (%) Max.	PLC (%) (1500°C / 2 hrs) Max.	PCE (SK) Min.	RUL (ta°C) Max.	MOR at 1400°C (kg/cm <sup>2</sup> ) Min.	Application Area
Tata-45D	45	1.70	2.30	500	16	±0.30	34	1500		For Blast Furnace; Cement Rotary Kiln; Lime Calcination Kiln; Glass Tank Furnace
Tata-CB	50	1.30	2.35	350	18	±0.50	34	1530		Anode Baking Furnace
Tata-HIAL-50	50	1.10	2.40	500	18	±0.50 1450°C / 4 hrs	34	1520		Anode Baking Furnace
Tata-CHL	53.5	1.36	2.55	1160	4.5	-0.03 at 1600°C / 5 hrs	1785	1550	275	Chlorinator
Tata-55D	55	1.70	2.40	500	17	±0.50 at 1450°C / 2 hrs	35	1520		For Blast Furnace Hearth; Glass Tank Furnace
Tata-HIAL-59	59	1.20	2.50	500	18	±0.50 at 1450°C / 4 hrs	36	1600		Anode Baking Furnace
Tata-62	62	1.50	2.40	350	22	±0.40	36	1500		Checkers for Blast Furnace Stove
Tata-62D	62	1.50	2.55	600	16	±0.20 at 1550°C / 2 hrs	36	1500		Blast Furnace Bottom
Tata-Mul-70	70	0.50	2.50	500	20	±0.20 at 1550°C / 2 hrs	36	1700		For Blast Furnace Stove Checkers; Glass Tank Regenerator Checkers; Carbon Black Reactor
Tata-95	95	0.5	3.00	600	22	±0.20	38	1700		For Secondary Steel-making Vessel; Chemical, Petrochemical and Fertilizer Industries
Tata-98	98	0.3	3.00	600	23	±0.30	38	1700		For Secondary Steel-making Vessel; Chemical, Petrochemical and Fertilizer Industries
Tata-99T	99	1.0	3.00	750	18	±0.30	38	1700		For Secondary Steel-making Vessel; Chemical, Petrochemical and Fertilizer Industries

- Note: 1. The above data relate to pressed bricks only.  
2. AP and CCS values are arithmetic mean of individual results.  
3. Size tolerance ± 1.5% or ± 2.0 mm, whichever is greater.



BNZ Materials manufactures, and is a worldwide supplier of a range of specialty industrial insulations. BNZ Insulating Fire Brick has been manufactured continuously at Zelienople, Pennsylvania for more than 60 years.

In addition to the Insulating Fire Brick product line, BNZ also manufactures many grades of Structural Insulations under the tradenames Marinite, Transite and CS85. These products are designed for use from ambient temperatures to 1800°F, in densities from 36 to 100 pcf, and will meet the demanding requirements of a variety of industries and their specific needs.

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



## **BNZ Materials, Inc.**

### **TaTa High-Alumina Brick Plant Location**

#### **Zelienople**

191 Front Street  
Zelienople, PA 16063  
Phone: **724-452-8650**  
**800-955-8650**  
Fax: 724-452-1346

### **CS85,™ Marinite® & Transite® Plant Location**

#### **Billerica**

400 Iron Horse Industrial Park  
North Billerica, MA 01862  
Phone: 978-663-3401  
800-888-0061  
Fax: 978-663-2735

#### **BNZ s.a.**

#### **Plémet, France**

Les Landelles  
B.P. 9  
22210 Plémet  
France  
Phone: (33) 2 96 25 61 01  
Fax: (33) 2 96 25 64 18

### **Corporate Headquarters**

#### **Denver**

6901 South Pierce Street  
Suite 260  
Littleton, CO 80128  
Phone: 303-978-1199  
800-999-0890  
Fax: 303-978-0308  
[www.bnzmaterails.com](http://www.bnzmaterails.com)

## **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.

## **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.