



# BNZ Materials, Inc.

# Silica Brick

## Refractory Products

BNZ Materials, Inc., in partnership with Tata Refractories Limited (Jamshedpur, India), provides high quality silica refractory products to the steel and glass 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 silica line of refractories offers a complete product line to service the coke-making operations of the steel industry and glass furnace crowns of the glass industry.

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

### Typical and Average Data of Silica Bricks

Brand Name	SiO <sub>2</sub> (%) Min.	Al <sub>2</sub> O <sub>3</sub> (%) Max.	Fe <sub>2</sub> O <sub>3</sub> (%) Max.	CaO (%) Max.	Na <sub>2</sub> O+K <sub>2</sub> O (%) Max.	B.D. (gm/cc) Min.	PCE SK Min.	RUL (ta°C) Min.	PLC (%) at 1450°C for 4 hrs Max.	AP (%) Max.	CCS (kg/cm <sup>2</sup> ) Min.	True Sp.Gr. Max.	RTE (%) 1000°C	R.Q. (%) Max.	Application Area
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#### Silica Bricks for Coke Oven

Tata SCW	94	1.5	1.5	2.5	0.3	1.80	31	1650	+0.4	23	300	2.36	1.3	6.0	Coke oven wall, regenerator and oven top
Tata SCS	94	1.5	1.5	2.5	0.3	1.85	31	1650	+0.4	17	500	2.36	1.3	6.0	Coke oven sole

#### Special Silica Bricks for Coke Oven as per DIN Specification

Tata SCW (SPL) KN	94.5	2.0	1.0	3.0	0.35	1.77	31	1640	+0.4	24.5	280	2.35	1.3	6.0	Coke oven regenerator wall
Tata SCW (SPL) KD	95	1.5	1.0	3.0	0.35	1.80	31	1650	+0.4	22	350	2.35	1.3	6.0	Coke oven wall
Tata SCW (SPL) KS	95	1.5	1.0	3.0	0.35	1.85	31	1650	+0.4	22	450	2.35	1.3	—	Coke oven general
Tata SCW (SPL) STD	94.5	2.0	1.0	3.0	0.35	1.80	31	1650	+0.4	24.5	280	2.35	1.3	1.0	Coke oven general

#### Silica Bricks for Glass and Other Industries

Tata SD (G)*	96	0.5	0.5	2.5	0.1	1.75	33	1680	+0.2	20	400	2.34	1.3	1.0	Superduty quality for glass tank roof
Tata SD (G) SPL*	96	0.3	0.5	2.5	0.1	1.75	33	1680	+0.2	20	300	2.34	1.3	0.5	- do -
Tata SD	95	1.0	0.5	2.5	0.2	1.75	32	1680	+0.2	19	300	2.35	1.3	2.0	- do -
Tata SOG	95	1.2	1.0	2.5	0.2	1.75	32	1670	+1.0	23	300	2.36	1.3	6.0	Standard bricks for various applications
Tata SNR	95	1.2	1.0	2.5	0.2	1.75	32	1670	+1.0	23	300	2.36	1.3	6.0	Soaking pit, copper regenerator, and other applications

- Note: 1. The above data relate to pressed bricks only.  
 2. AP and CCS values are arithmetic mean of individual results.  
 3. Size tolerance  $\pm 1.5\%$  or  $\pm 2.0$  mm, whichever is greater.  
 4. Flux Factors for Tata SD(G) and Tata SD (G) SPL are 0.7 and 0.5, respectively.  
 5. Warpage: (a) 0.5 mm for Tata SD (G), Tata SD (G) SPL  
 (b) 1.0 mm for other brands

### 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.



## BNZ Materials, Inc.

### Zelienople

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

Fax: 724-452-1346

whparker@bnzmaterials.com  
www.bnzmaterials.com