



## BNZ s.a.

### BNZ s.a. Grades

**RI 23** High melting point; used for glass furnace insulation as well as general furnace usage.

**RI 23 B** is a higher cold crush strength version of RI 23. Used for anode baking furnaces worldwide.

**Calor A** is the traditional Grade 25 IFB for furnace and kiln applications.

**Calor B** is a stronger, denser version of the Calor A.

**Calor CA** is a high strength version of Calor A, used extensively for aluminum reduction cells worldwide with proven resistance to aluminum, metal and

associated process fluorides. Also used for general insulation as a high cold crush strength 25 grade insulation.

**Calor 26 and 26 B** are general purpose 26 grade insulations, suitable for anode baking furnaces and glass melting tank insulation.

## Feuerleichtstein

Datenblatt		RI 23	RI 23 B	Calor A	Calor B	Calor CA	Calor 26	Calor 26 B
<b>Klassifikation</b>								
ISO 2245		130-0.65-L	130-0.7-L	135-0.8-L	135-0.9-L	135-1.1-L	140-0.8-L	140-0.9-L
ASTM C 155		23	23				26	
<b>Klassifikationstemperatur</b>	°C	1300	1300	1350	1350	1350	1430	1430
<b>Rohdichte</b>								
ASTM C 134	kg/m <sup>3</sup>	650	700	820	900	1100	820	900
<b>Kaltdruckfestigkeit</b>								
ASTM C 133	MPa – flat – edge	1.3	2.0	2.5	4.0	5.4 8.2	2.2	4.0
<b>Bleibende Längenänderung (lin.)</b>		%						
ASTM C 210								
24 h bei eine Temperatur, °C								
1300		-0.5	-0.5	—	—	—	—	—
1350		—	—	-0.5	-0.5	-0.5	—	—
1400		—	—	—	—	—	-0.5	-0.5
<b>Wärmeausdehnung (lin.)</b>		%						
Reversible 20–1000°C		0.5	0.5	0.5	0.5	0.5	0.6	0.6
<b>Wärmeleitfähigkeit</b>		W/mk						
ASTM C 182								
Temperatur, °C								
200		0.17	0.17	0.21	0.23	0.29	0.24	0.26
400		0.19	0.19	0.24	0.27	0.32	0.26	0.29
600		0.22	0.23	0.28	0.30	0.36	0.29	0.32
800		0.26	0.27	0.32	0.35	0.40	0.32	0.35
1000		0.30	0.31	0.37	0.40	0.45	0.36	0.39
1200							0.40	0.43
<b>Chemische Analyse</b>		%						
Alumina – Al <sub>2</sub> O <sub>3</sub>		34.0	34.0	34.0	34.0	34.0	43.0	43.0
Silica – SiO <sub>2</sub>		57.0	57.0	57.0	57.0	57.0	50.0	50.0
Ferric Oxide – Fe <sub>2</sub> O <sub>3</sub>		1.2	1.2	1.2	1.2	1.2	1.0	1.0
<b>Maßtoleranzen</b>	mm	± 1	± 1	± 1	± 1	± 1	± 1	± 1

Die o.g. physikalischen und chemischen Eigenschaften der Feuerleichtsteine wurden an Standardformaten aus laufender Fertigung mittels anerkannter Test- und Meßmethoden ermittelt und unterliegen den normalen Fertigungstoleranzen. Dieses Datenblatt dient zur information. Änderungen sind vorbehalten. Werte nicht für Spezifikationen verwenden.



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 46 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.

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Ausgabe: Mar-01  
Ersetzt: Jan-00

## 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.



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

#### Billerica

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## 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.