

# BA 85

<b>Classification</b>	High-Alumina Brick ASTM C 27, 85% Alumina			
<b>Physical Properties</b>	Refractoriness	Orton Cone	>38	
	Bulk Density	kg/m <sup>3</sup>	2920	
	Apparent Porosity	%	17.0	
	Cold Crushing Strength	kg/cm <sup>2</sup>	1050	
	Modulus of Rupture	kg/cm <sup>2</sup>	250	
	Permanent Linear Change After Heating at 1600 °C	%	0.50	
	<b>Chemical Composition</b>	Alumina (Al <sub>2</sub> O <sub>3</sub> )	%	85.0
		Silica (SiO <sub>2</sub> )	%	9.0
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )		%	1.2	
Titania (TiO <sub>2</sub> )		%	2.2	
<b>Thermal Expansion</b>	400 °C	%	0.34	
	800 °C	%	0.50	
	1000 °C	%	0.72	
	1200 °C	%	0.91	
	1400 °C	%	1.10	
<b>Thermal Conductivity</b>	400 °C	(W/m.K)	2.40	
	600 °C	(W/m.K)	2.20	
	800 °C	(W/m.K)	2.10	
	1000 °C	(W/m.K)	2.05	

The above data are typical properties of 9" commercial straight brick. The data are subjected to reasonable variations and should not be used for specification purposes.

ASTM test methods, and SRIC's written procedure, where applicable, used for determination of data.

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