

Snow Shoe Refractories, LLC

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SPARTAN® 85

Product Data

Scope:

A burned, phosphate bonded 85% high alumina brick exhibiting high strength and abrasion resistance, as well as resistance to metal and slag attack. This brick will find applications in steel ladles, induction furnaces, tundish linings, pocket blocks, aluminum, incinerators, and cement and lime kiln nose rings.

PCE: 38

Chemical Analysis (Wt.% - Calcined Basis)	
SiO ₂	8.0
Al ₂ O ₃	85.4
TiO ₂	3.1
Fe ₂ O ₃	1.2
CaO	0.2
MgO	0.1
Alkalies	0.3
P ₂ O ₅	1.7

Physical Properties				
	<u>English Units</u>		<u>SI Units</u>	
	<u>Average</u>	<u>Standard Deviation</u>	<u>Average</u>	<u>Standard Deviation</u>
Bulk Density	181.0	2.5	2,900	40
	(lbs/ft ³)		(kg/m ³)	
Apparent Porosity (%)	17.0	1.5		
Modulus of Rupture at 68°F (20°C)	2,730	475	18.8	3.2
	(psi)		(MPa)	
Crushing Strength at 68°F (20°C)	11,000 - 15,000		76 - 103	
	(psi)		(MPa)	
Linear Change (%) after 2910°F (1600°C) reheat		- 0.5		
ASTM C704 Abrasion Loss (cc)		< 10		

The data given above are average results of our common sized products and are subject to variation. One standard deviation is given when adequate data is available. These results should not be used for specification purposes.

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