

Snow Shoe Refractories, LLC

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SPARTAN® 98 DX

Product Data

Scope:

A ceramic bonded zirconia enhanced, 98% high alumina brick made from high purity ingredients. Its ceramic bonding makes it a premium refractory product with low porosity, excellent hot properties, and resistance to extreme temperature and service conditions as well as thermal shock. It will find use in induction furnaces, incinerators, carbon black furnaces, and chemical processing units.

Chemical Analysis (Wt.% - Calcined Basis)	
SiO ₂	0.0
Al ₂ O ₃	97.9
TiO ₂	0.0
Fe ₂ O ₃	0.0
CaO	0.0
ZrO ₂	2.0
Alkalies	0.1

PCE: 41+

Physical Properties				
	English Units		SI Units	
	Average	Standard Deviation	Average	Standard Deviation
Bulk Density	202.0	4.5	3,230	70
	(lbs/ft ³)		(kg/m ³)	
Apparent Porosity (%)	15.4	1.5		
Modulus of Rupture		(psi)		(MPa)
at 68°F (20°C)	2,200	400	15.2	2.8
at 2700°F (1480°C)	660	40	9.6	0.6
Crushing Strength		(psi)		(MPa)
at 68°F (20°C)	11,000	720	141	10.4
Linear Change (%)				
after 3100°F (1700°C) reheat			-0.5	
Hot Load Deformation (%)				
at 2800°F (1595°C)			nil	
Thermal Expansion	English Units		SI Units	
	4.7x10 ⁻⁶ in/in/°F		8.5x10 ⁻⁶ cm/cm/°C	

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.