

# Snow Shoe Refractories, LLC

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## France Non Spall

### Product Data

#### Scope:

A special high duty fireclay brick with a well balanced formulation to provide resistance to spalling, abrasion, and chemical attack. It will find use in furnace roofs and linings, boilers, incinerators, cement and lime kilns, reheat furnaces, and a wide variety of other applications.

**PCE:** 31½ - 32½

<b>Chemical Analysis (Wt.% - Calcined Basis)</b>	
SiO <sub>2</sub>	56.2
Al <sub>2</sub> O <sub>3</sub>	38.8
TiO <sub>2</sub>	1.9
Fe <sub>2</sub> O <sub>3</sub>	1.3
CaO	0.1
MgO	0.3
Alkalies	1.4

<b>Physical Properties</b>				
	<u>English Units</u>		<u>SI Units</u>	
	<u>Average</u>	<u>Standard Deviation</u>	<u>Average</u>	<u>Standard Deviation</u>
<b>Bulk Density</b>		(lbs/ft <sup>3</sup> )		(kg/m <sup>3</sup> )
	139.0	4.0	2,230	60
<b>Apparent Porosity (%)</b>	16.5	2.0		
<b>Modulus of Rupture</b> at 68°F (20°C)		(psi)		(MPa)
	945	195	6.5	1.3
<b>Crushing Strength</b> at 68°F (20°C)		(psi)		(MPa)
		3,500 - 5,500		24 - 38
<b>Linear Change (%)</b> after 2910°F (1600°C) reheat				+ 2.5
after 2460°F (1350°C) reheat				+ 0.1
<b>Hot Load Deformation (%)</b> 25 psi load at 2640°F (1450°C)				- 3.8

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.