

## Product Data

6/12: 5196

Description: Super Duty Fireclay Brick

### Chemical Analysis: Approximate (Calcined Basis)

Silica (SiO <sub>2</sub> )	52.0%
Alumina (Al <sub>2</sub> O <sub>3</sub> )	43.0%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1.3%
Titania (TiO <sub>2</sub> )	2.3%
Lime (CaO)	0.3%
Magnesia (MgO)	0.3%
Alkalies (Na <sub>2</sub> O + K <sub>2</sub> O)	1.0%

### Physical Data (Typical)

Bulk Density	142 lb/ft <sup>3</sup> (2.27 g/cm <sup>3</sup> )
Modulus of Rupture	1,300 lb/in. <sup>2</sup> (9.0 MPa)
Permanent Linear Change	
After 2910°F (1600°C)	-0.3%
Apparent Porosity	14.5%
Thermal Conductivity	Btu·in/hr·ft <sup>2</sup> ·°F (W/m·°C)
At 400°F (205°C)	8.6 (1.24)
At 800°F (425°C)	8.9 (1.28)
At 1200°F (650°C)	9.1 (1.31)
At 1600°F (870°C)	9.3 (1.34)
At 2000°F (1095°C)	9.7 (1.40)
At 2400°F (1315°C)	10.1 (1.46)
Hot Load Test	
Deformation at 2640°F (1450°C)	1.3%
Pyrometric Cone Equivalent	
Orton Standard Cones	33

Note: The test data shown are based on average results on production samples and are subject to normal variation on individual tests. The test data cannot be taken as minimum or maximum values for specification purposes. ASTM test procedures used when applicable.