

## Product Data

10/16: 5912

Description: High-Fired ,Super Duty Fireclay Brick

## Chemical Analysis: Approximate (Calcined Basis)

Silica (SiO <sub>2</sub> )	53.0%
Alumina (Al <sub>2</sub> O <sub>3</sub> )	42.1%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1.3%
Titania (TiO <sub>2</sub> )	2.2%
Lime (CaO)	0.2%
Magnesia (MgO)	0.2%
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	1,700 lb/in. <sup>2</sup> (11.7 MPa)
Cold Crushing Strength	5,000 lb/in. <sup>2</sup> (34.5 MPa)
Permanent Linear Change	
At 2910°F (1600°C)	-0.4%
Apparent Porosity	13.5%
Thermal Conductivity	Btu·in/hr·ft <sup>2</sup> ·°F (W/m·°C)
At 400°F (205°C)	9.7 (1.40)
At 800°F (425°C)	9.8 (1.41)
At 1200°F (650°C)	10.0 (1.44)
At 1600°F (870°C)	10.3 (1.48)
At 2000°F (1095°C)	10.7 (1.54)
At 2400°F (1315°C)	11.0 (1.58)
Hot Load Test	
Deformation at 2640°F (1450°C)	0.6%
Pyrometric Cone Equivalent	
Orton Standard Cones	33 - 34
Creep Test, DIN Furnace 28.4 psi (2.0 kg/cm <sup>2</sup> )	
Subsidence in Period between 20-50 hours hold	
At 2192°F (1200°C)	0.2%

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.