

# GREENAL-90



## Product Data

9/06: 5438

Description: Pressed 90% alumina, mullite bonded brick

Features: Exhibits excellent resistance to slagging, abrasion, metal erosion, and deformation under load.

- Uses:
- High Temperature Dome Shapes
  - High Temperature Incinerator Furnace Linings
  - Steel Ladle Impingement Pads
  - Steel Tundish Impingement Pads
  - Sulphur Recovery Unit Linings
  - Brass Vertical Channel Induction

## Chemical Analysis: Approximate (Calcined Basis)

Silica (SiO <sub>2</sub> )	7.7%
Alumina (Al <sub>2</sub> O <sub>3</sub> )	90.0%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.1%
Titania (TiO <sub>2</sub> )	Trace
Lime (CaO)	0.1%
Magnesia (MgO)	Trace
Phosphorous Pentoxide (P <sub>2</sub> O <sub>5</sub> )	1.9%
Alkalies (Na <sub>2</sub> O + K <sub>2</sub> O)	0.2%

## Physical Data (Typical)

Bulk Density	189 lb/ft <sup>3</sup> (3.03 g/cm <sup>3</sup> )
Modulus of Rupture	lb/in. <sup>2</sup> (MPa)
At 70°F (21°C)	3,500 (24.1)
At 2700°F (1480°C)	2,100 (14.5)
Cold Crushing Strength	21,000 lb/in. <sup>2</sup> (144.8 MPa)
Permanent Linear Change	
At 3200°F (1760°C)	+0.1%
Apparent Porosity	13.2%
Load Test, 25 psi (1.8 kg/cm <sup>2</sup> )	
Linear Subsidence after 3100°F (1705°C)	0.5%

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.