

# PRODUCT DATA

## PILOT D.P. FIREBRICK

### ALSEY PILOT D.P. Super Duty Firebrick

**Description:**

Super duty dry press firebrick

**Sizes:**

Various

### TYPICAL TEST DATA -- PHYSICAL PROPERTIES

**ASTM C-24**

P.C.E. .... 33  
 Temperature Equivalent (melting), °F..... 3169  
 Service Temperature (max. recommended), °F ..... 2910

**ASTM C-133**

Modulus of Rupture (MOR), psi ..... 1100-1500  
 Cold Crush ..... 6000

**ASTM C-20**

Apparent Porosity, % ..... 14-18  
 Apparent Specific Gravity, g/cc..... 2.68  
 Bulk Density (fired) lb/ft<sup>3</sup> ..... 138-142  
 Water Absorption, %..... 6.0

**ASTM C-16 Schedule 3, % deformation**

Load Test at 2640°F..... 1.3

**ASTM C-27**

Classification ..... Super Duty

**ASTM C-113 Schedule B % linear**

Reheat Change at 2910°F..... -1.0 to +0.5

### Thermal Conductivity (K-Factor)

At a mean temperature of		Btu/in ft <sup>2</sup> hr°F	W/m°C
400°F	(205°C)	8.1	1.2
800°F	(425°C)	8.4	1.2
1200°F	(650°C)	10.1	1.5
1600°F	(870°C)	10.8	1.6
2000°F	(1095°C)	11.4	1.6
2400°F	(1315°C)	12.0	1.7

### TYPICAL CHEMICAL ANALYSIS, Wt. % (calcined basis)

Silica (SiO <sub>2</sub> )	49.37
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	44.32
Titanium Dioxide (TiO <sub>2</sub> )	2.23
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1.38
Potassium Oxide	1.37
Magnesium Oxide (MgO)	0.42
Calcium Oxide (CaO)	0.22
Other Oxides	0.69
Total	100.00

Loss on Ignition, 1000°C ..... 0.00

MSDS available upon request.

Alsey Refractories Company ph: 314-963-7900 fax: 314-963-7973 info@alsey.com www.alsey.com

The above properties represent average results of typical data produced from standard ASTM test methods on a 9" straight. Specifications should not be considered guaranteed. Alsey Refractories Company makes every effort to ensure consistency in our products; however, properties may vary due to standard statistical manufacturing deviations. Alsey Refractories Company reserves the right to modify this data at any time without prior notice.