



ALSEY
refractories co.

PRODUCT DATA

SMITHFIELD UNBRANDED

Medium Duty, dry press firebrick of various sizes

TYPICAL TEST DATA

CHEMICAL ANALYSIS [Wt. % Calcined Basis]

Silica [SiO ₂]	62.9
Aluminum Oxide [Al ₂ O ₃]	30.8
Titanium Dioxide [TiO ₂]	1.7
Iron Oxide [Fe ₂ O ₃]	2.1
Potassium Oxide [K ₂ O]	1.5
Other Oxides	0.3
Magnesium Oxide [MgO]	0.5
Calcium Oxide [CaO]	0.2
Total	100.0
Loss on Ignition, 1000°C	0.1

THERMAL CONDUCTIVITY [K-Factor]

At a mean temperature of		Btu/in ft ² hr°F	W/m°C
400°F	[205°C]	8.2	1.18
800°F	[425°C]	8.5	1.23
1200°F	[650°C]	9.0	1.30
1600°F	[870°C]	9.2	1.33
2000°F	[1095°C]	9.5	1.37
2400°F	[1315°C]	9.8	1.41

PHYSICAL PROPERTIES

ASTM C-24

P.C.E.	29
Service Temperature [max. recommended], °F	2700
Temperature Equivalent [melting], °F	3018

ASTM C-133

Modulus of Rupture [MOR], psi	977
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ASTM C-20

Apparent Porosity, %	21.3
Apparent Specific Gravity, g/cc	2.6
Bulk Density [fired] lb./ft ³	130.2
Water Absorption, %	9.8

ASTM C-16 Schedule 3 [% deformation]

Load Test at 2640°F	-6.8
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ASTM C-113 Schedule B [% linear]

Reheat Change at 2550°F	-2.8
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ASTM C-38 2910°F preheat

Panel Spalling Loss, % wt.	9.5
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SDS AVAILABLE UPON REQUEST

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.



Alsey Refractories Company
266 State Route 106 South P O BOX 80
Alsey IL 62610
314.963.7900 | info@alsey.com