



ALSEY
refractories co.

PRODUCT DATA

HI-CAST 45 REFRACTORY CASTABLE

Dry, hydraulic setting, high duty refractory castable.

TYPICAL TEST DATA

CHEMICAL ANALYSIS [Wt. % Calcined Basis]

Silica [SiO ₂]	46.25
Aluminum Oxide [Al ₂ O ₃]	44.88
Calcium Oxide [CaO]	4.30
Titanium Dioxide [TiO ₂]	1.90
Iron Oxide [Fe ₂ O ₃]	1.65
Potassium Oxide [K ₂ O]	0.60
Magnesium Oxide [MgO]	0.32
Sodium Oxide [Na ₂ O]	0.08
Total	99.98
Loss on Ignition, 1000°C	0.68

Sizes: 55lb bag [3A3055]
3000lb supersack [3A3300]

Application:

Recommended water content is 9-12%.
[2.5-3.5 US Quarts / 55lb bag.]

Actual water content may vary depending on job site conditions.

Coverage 55lb sack = 0.44ft³

Stir dry mix thoroughly and add the correct ratio of water. Return unused portion to the bag. To avoid moisture absorption, store HI-CAST 45 in a cool dry place.

Under normal atmospheric conditions, set will occur 8 to 10 hours after HI-CAST 45 is mixed. Heat can usually be applied after 24 hours; however, starting temperature must be held below the boiling point of water to avoid the formation of steam which will result in excessive cracking, spalling and lower strength.

PHYSICAL PROPERTIES

ASTM C-24

P.C.E.	31-31½
Service Temperature [max. recommended], °F	2700
Temperature Equivalent [melting], °F	3061-3090

ASTM C-133 (4000 lb/min)

Temperature	MOR	Cold Crush
200°F	521	1241
1000°F	266	828
1500°F	187	1110
2000°F	189	714
2500°F	759	2302

ASTM C-20 (after 2500°F)

Apparent Porosity, %	25.9
Apparent Specific Gravity, g/cc	2.71
Bulk Density [fired] lb./ft ³	125.2

ASTM C-113 Schedule B [% linear]

Reheat Change at 2550°F	2.2
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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.

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Manufacturer of Quality Refractories Since 1906