

PRODUCT
BLACK JACK

LOW CEMENT, SELF FLOWING SILICON CARBIDE
CASTABLE, PUMP MIX, SHOTCRETE

REFRACTORIES

TECHNICAL DATA

PHYSICAL PROPERTIES

Maximum Service Temperature	2900°F
ASTM C-401	Class D
Lbs. Required Dry Mix per Cu. Ft.	160 lbs.
% Water by Weight Required for Casting	Approx. 6%
Bulk Density After Drying at 230°F	165 lbs./cu.ft.

Modulus of Rupture

After Drying at 230°F	2000 - 3000 psi
At 1500°F	3000 - 4000 psi
At 2250°F	1500 - 2000 psi

Permanent Linear Change

After Drying at 230°F	Negligible
After Heating to 1500°F	-0.06%
After Heating to 2550°F	-0.20 to -0.25%

Cold Crushing Strength

After Drying to 230°F	9000 - 13000 psi
After Drying to 1500°F	16000 - 20000 psi

CHEMICAL ANALYSIS

Silicon Carbide [SiC]	87.7%
Silica [SiO ₂]	4.4%
Alumina [Al ₂ O ₃]	5.0%
Iron Oxide [Fe ₂ O ₃]	Trace
Lime [CaO]	1.9%

THERMAL CONDUCTIVITY BTU/SQ.FT./HR./°F/IN.

At 500°F	52.0
At 1000°F	46.8
At 1500°F	48.8

NOTE: All data subject to reasonable deviation and should not be used for specification purposes.

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MT. SAVAGE
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BLACK JACK is a low cement castable that must be installed using high energy vibrator techniques. Water content is critical to obtain data sheet properties. Casting mixture should be between 70°F and 90°F when casting and in cold weather this can be accomplished by preheating material, water or both.

Material must be mixed for 5 to 8 minutes in a clean paddle type mixer, and left in the forms for 24 to 48 hours. Careful heatup is required to remove all water due to the low permeability of this product.

BLACK JACK possesses excellent resistance to penetration by molten slags and non-ferrous metals, thermal shock resistance, abrasion resistance, and high thermal conductivity. BLACK JACK is recommended for use in combustion areas, cyclone burners, and any other application where these properties are necessary.