#### **PRODUCT**

### **BLACK JACK 60 SC**

## LOW CEMENT SILICON CARBIDE SHOTCRETE MIX

# REFRACTORIES TECHNICAL DATA

## PHYSICAL PROPERTIES

Maximum Service Temperature 2700°F

ASTM C-401 Class D

Lbs. Required Dry Mix per Cu. Ft. 155 lbs.

% Water by Weight Required for Casting Approx. 5.8%

Bulk Density After Drying at 230°F 160 lbs./cu.ft.

Modulus of Rupture

After Drying at 230°F 1300 – 1800 psi Hot MOR at 1500°F 2800 – 3500 psi Hot MOR at 2550°F 600 – 1000 psi

Cold Crushing Strength

After Drying at  $230^{\circ}$ F 5000 - 7000 psi After Firing to  $1500^{\circ}$ F 8000 - 14000 psi

Permanent Linear Change

After Drying at 230°F

After Heating to 1500°F

After Heating to 2550°F

Negligible
-0.0 to -0.3
+0.2 to +1.0

Abrasion Loss – After  $1500^{\circ}$ F 5 – 8 cc

CHEMICAL ANALYSIS

 $\begin{array}{lllll} \text{Silicon Carbide} & & [\text{SiC}] & & 60.3\% \\ \text{Silica} & & [\text{SiO}_2] & & 12.0\% \\ \text{Alumina} & & [\text{Al}_2\text{O}_3] & & 25.2\% \\ \text{Iron Oxide} & & [\text{Fe}_2\text{O}_3] & & 0.3\% \\ \text{Lime} & & [\text{CaO}] & & 1.9\% \\ \end{array}$ 

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

At 500°F 38.5 At 1000°F 35.4 At 1500°F 37.4

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

9010

