

## SPARFIRE 32-80 FF

**SPARFIRE 32-80 FF** is a 3200°F is a high strength, low-cement bonded refractory designed for installation by vibration casting, pumpcasting or shotcreting. This product was designed for an accelerated dryout schedule.

### PHYSICAL PROPERTIES

Maximum Service Temperature	3200°F
Mix Water Required: (% by Weight)	Vibrating: 4.0 – 4.5 Pumping: 5.0 – 6.0
Bulk Density: 230°F	176 lbs/cu.ft
: 1500°F	170 lbs/cu.ft
Modulus of Rupture	
After Heating to 1500°F	2000 -3000 lbs/sq.in
Cold Crushing Strength	
After Heating to 1500°F	10000-16000 lbs/sq.in
Linear Change, %	
After Heating to 1500°F	-0.1 to -0.4
Erosion Resistance (ASTM C704)	
After Heating to 1500°F	Less than 7 cc (Typical Loss: 3 to 5 cc)
Typical Chemical Analysis, %	
Al <sub>2</sub> O <sub>3</sub>	81.1
SiO <sub>2</sub>	13.3
CaO	1.8
TiO <sub>2</sub>	2.6
Fe <sub>2</sub> O <sub>3</sub>	0.8
MgO	0.1
Alkalies	0.3

**SPARFIRE 32-80 FF** is available in 50# bags, 1500#, 2000#, and 3000# bulk bags palletized and shrink-wrapped.

**NOTE: CASTABLE MUST BE STORED IN DRY PLACE.**

Data shown are average results of standard ASTM testing unless otherwise noted. Results may vary subject to normal variations in manufacturing, testing, and installation procedures in the field.