



## Fedcast 85

**DESCRIPTION:** 85% alumina, low-cement castable.

**USES INCLUDE:** Ladle bottoms.  
Barrels.  
Safety linings.  
Precast shapes for myriad uses.  
Reheat furnace hearth.

### CHEMICAL ANALYSIS: (TYPICAL CHEMICAL ANALYSIS)

(Approximate % - calcined basis)

Al <sub>2</sub> O <sub>3</sub>	83.55%
SiO <sub>2</sub>	11.57%
TiO <sub>2</sub>	2.81%
Fe <sub>2</sub> O <sub>3</sub>	1.08%
CaO	0.64%
Alkalies	0.3%
K <sub>2</sub> O + Na <sub>2</sub> O	0.3%
MgO	0.05%

### TYPICAL AS RECEIVED PROPERTIES:

Temperature ° C (° F)	Bulk Density pcf (g/cc)	Cold MOR psi (MPa) per ASTM C865 & C133	Hot MOR psi (MPa) per ATM C583	Linear Change % Per ASTM C865 & C133
104 (220)	178 (2.85)	1200 (8)	-	0.00
815 (1500)	174 (2.78)	1350 (9)	1900 (13)	- 0.10
1371 (2500)	175 (2.80)	1650 (11)	590 (4)	+ 0.50
1649 (3000)	177 (2.84)	1880 (13)	-	+ 0.10

Grain Size (mesh):	- 3
Material Required lbs/ft <sup>3</sup> (kg/ft <sup>3</sup> ):	175 (2.80)
Maximum Service Temp ° C (° F):	1816 (3300)
Water Required for Mixing (%):	5.5 ~ 6.25

The values reported above are average values derived from production data encompassing many different sizes and shapes. Actual data will vary to a small degree naturally and as a function of size and shape. This form is not intended to be used for purposes of specification; it is informational only.

Version 20.11