



**CLAYBURN INDUSTRIES LTD.**

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## TECHNICAL DATA

### CLAYBURN NC-90 AR

CLAYBURN NC-90 AR is a high alumina no cement refractory with excellent resistance to iron oxide reaction and penetration, thermal shock and abrasion. It is designed to be easily installed by pumping. High density, low porosity, volume stability, high hot strength and quick dry-out are its unique characteristics. CLAYBURN NC-90 AR is recommended for applications in reheat furnace hearths, torpedo ladles, steel ladle barrels, delta sections and tundish back-up linings.

<b>SERVICE TEMPERATURE:</b>	3100°F
<b>MATERIAL REQUIRED FOR ESTIMATING:</b>	185 lbs./cu. ft.
<b>STORAGE LIFE:</b>	1 year
<b>BINDER ADDITION:</b>	8.75 - 9.5% by weight

### TYPICAL CHEMICAL ANALYSIS

(Calcined Basis)

Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>
89 - 90	5 - 6	<1.0	2.5 - 3.0

### TYPICAL PHYSICAL PROPERTIES

Prefired to °F	Modulus of Rupture, psi	Cold Crushing Strength, psi	Linear change %
250	1200-1450	4,000-5,000	Nil
1500	1400-1650	7,800-9,000	-0.1
2000	3850-4100	9,500-10,500	-0.3
2500	4100-4200	10,500-11,500	-0.3

**Apparent Porosity after 3000°F:** 13.14%

**Abrasion Loss after 1500°F:** 4.9 cc

**Abrasion Loss after 2500°F:** 3.5 cc

**Hot MOR at 1500°F:** 2562 psi

**Hot MOR at 2500°F:** 2037 psi

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