



RENO REFRACTORIES, INC

RENO Cast NC 6059

TECHNICAL DATA SHEET

RENO Cast NC 6059 is a high alumina, ultra-low cement castable containing 7% silicon carbide.

- This material has high density, low porosity, and rapid dry-out characteristics which makes it an excellent material for use in foundries and steel mills with harsh conditions.
- Excellent resistance to molten iron and slag, thermal shock and oxidation.
- This material is recommended for use blast furnace troughs, tilters, torpedo and transfer ladles, as well as skimmer blocks.

Service Temperature: 3000°F  
 Liquid Type: Colloidal  
 Addition Quantity: (cast) 10-11% by weight  
 Wt. required for estimating: 172 lb/ft<sup>3</sup>  
 Storage Life: 1 year

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>	SiC + C
81	8.5	0.8	2.5	8

TYPICAL PHYSICAL PROPERTIES

Prefire Temperature (°F)	Modulus of Rupture (psi)	Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Linear Change (%)	Permeability (mdarcy)	Thermal K (Btu/in/ft <sup>2</sup> /hr)	Surface Area (m <sup>2</sup> /g)
300	1,321	4,762	175.8	15.0	-0.10	10.4	15.3	3.11
750	1,089	5,414	175.6	15.1	-0.15	13.8	16.4	3.49
2200	6,035	16,298	175.6	9.5	0.33	36.8	19.0	0.07
2650	3,076	10,805	166.0	16.5	1.63	35.6	19.4	0.35
2800	1460	6375	165.3	14.3	0.22	54.3	18.9	0.14

Thermal Expansion Coefficient: 3.13E-6 in/in/F (ASTM C832)  
 Thermal Cycle Loss (2000°F): 85.6% Loss (ASTM C1171)

Hot MOR at 2500°F: 730 psi (ASTM C583)  
 Hot MOR at 2750°F: 275 psi (ASTM C583)

Abrasion Loss After 2500°F: 2.4 cc (ASTM C704)  
 Abrasion Loss After 2800°F: 3.0 cc (ASTM C704)

**PACKAGING:** 55 lb. Bags, 72 per Pallet (3960 lbs.) 1500 lb. Bags, 2 per Pallet (3000 lbs.) 2000 lb. Bags, 2 per Pallet (4000 lbs.)  
 187102 – 8/30/2022

The data presented represents typical average results obtained by testing under ASTM or other acceptable procedures as required. They are subject to normal variations and should not be used for specification purposes.