



TECHNICAL DATA SHEET

Reno Cast 52 AR LC is a high alumina low cement castable that contains silicon carbide and zircon. This product has low porosity, high strengths and excellent resistance to alkali, thermal shock abrasion and oxidation.

- Can be installed by vibration casting, pumping and shotcrete.
- Recommended for use in Cement applications including: Stage 3 & 4 Cyclones, Calciner, Feed Hood, Firing Hood, Tertiary Duct, & Cooler Vent Duct.

Service Temperature: 2800°F / 1538°C
 Liquid Type: Water
 Addition Quantity: 6.75 – 7.75%

Wt. Required for Estimating: 150 lb/ft³
 Storage Life: 6 months
 Shotcrete Binder: Sodium Nitrite

TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

Al ₂ O ₃	SiO ₂	SiC	Zr ₂ O ₃	Fe ₂ O ₃	TiO ₂	CaO	Alkalies	Other
48-53	28-33	7-8	2-4	<1	<1.5	2-3	<0.5	1-3

TYPICAL COLD PHYSICAL PROPERTIES

Prefired to °F	Cold Modulus of Rupture (psi)	Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Linear Change (%)	Abrasion Loss (cc)	Thermal Shock Loss (%)	Permeability (mDarcys)	Surface Area (m ² /g)
750	2,222	8,960	153	14.4	-0.07			0.022	7.841
1500	1,902	9,917	149	17.6	-0.17	< 5.8		0.091	6.186
2000	2,588	11,261	150	18.8	-0.46		-22.92	0.664	1.344
2500	2,381	11,607	142	19.0	1.67	< 9.1		80.837	0.571
2800	3,714	12,019	151	15.6	0.74			35.064	0.538

TYPICAL HOT PHYSICAL PROPERTIES

Prefired to °F	Hot Modulus of Rupture (psi)	Thermal Conductivity (BTU/ft ² /hr/in/°F)	Thermal Expansion (%) (oxidizing)
750		11.8	0.15
1500	2,866	11.2	0.22
2000		10.9	0.40
2500	186	10.7	2.10
2750		10.6	1.95

Coefficient of Thermal Expansion: 2.35x10⁻⁶ in/in/°F

Standard Cure Out Schedule: Schedule E

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.