



TECHNICAL DATA SHEET

ElectroCast 316 SIC is a high alumina, silicon-carbide fortified, low moisture castable designed to be installed by vibration casting into forms.

- Recommended for use in blast furnace troughs, skimmer blocks, tilting runners, cupola skimmer blocks, cupola wells, troughs, and tap-hole blocks.
- Excellent refractory for large blast furnace troughs where slag resistance at high temperatures is paramount.
- Based on Reno's propriety Electro Chemical bond system featuring an electrolyte for ultimate performance.
- Rapid dry out capability while still retaining very low porosity.
- Excellent resistance to iron, slag, thermal shock and oxidation.

Service Temperature: 3000°F
 Electrolyte Type: E3
 Addition Quantity: 3.6-4.0% (wt.)
 Wt. Required for Estimating: 196 lb/ft³
 Storage Life: 6 months

TYPICAL CHEMICAL ANALYSIS (Calcined Basis)

Al₂O₃ 76.1 SiO₂ 6.5 TiO₂ 1.4 SiC + C 16

TYPICAL PHYSICAL PROPERTIES (Cast Samples) *reducing

Prefire Temperature (°F)	Modulus of Rupture (psi)	Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Linear Change (%)	Permeability (mDarcys)	Thermal k (Btu/ft ² /in/hr)	Surface Area (m ² /g)
300	2,007	8,835	199.3	9.5	0.0	2.00	18.1	2.36
750	1,339	9,956	199.1	12.3	0.0	1.73	19.2	2.92
1500	2,490	22,656	195.9	13.0	0.0	2.87	19.6	1.47
2000	4,791	32,325	192.2	10.4	-0.11	5.02	20.1	0.08
2500*	2,978	26,765	189.7	8.6	0.15	8.76	20.3	0.59
2800*	2,575	21,813	187.2	10.5	0.56	7.33	20.9	0.45

Thermal Expansion Coefficient: 3.02E-6 in/in/°F (ASTM C832)
 Thermal Shock Loss (after 2000°F): 19.17% MOR Loss (ASTM C-1171)

Hot MOR at 2750°F: 543 psi (ASTM C583)

Abrasion Loss After 1500°F: 2.3 cc (ASTM C704)
 Abrasion Loss After 2500°F: 3.8 cc (ASTM C704)
 Abrasion Loss After 2500°F: 6.0 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.)
 EBCO 20-060A 20-038A Revised BP 5/17/2021 pin#194520

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.