RENO REFRACTORIES, INC

ElectroPump™ 316 SIC

TECHNICAL DATA SHEET

ElectroPump 16 SIC is a high alumina silicon-carbide, 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
Storage Life:	6 months
Electrolyte Type:	E3
Addition Quantity:	3.75 – 4.5% (wt.)
Wt. Required for Estimating:	196 pcf

TYPICAL CHEMICAL ANALYSIS (Calcined Basis)

Al_2O_3	SiO_2	TiO_2	SiC + C
76.1	6.5	1.4	16

TYPICAL PHYSICAL PROPERTIES (Cast Samples)

Prefire Temperature (°F)	Modulus of Rupture (psi)	Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Linear Change (%)	Permeability (mDarcys)	Thermal k (Btu/ft²/in/hr)
300	775 – 1,000	5,572 – 6,016	187.8	8.0	0.10	2.00	12.9
750	1,409 - 1,487	6,030 – 6,380	190.1	12.7	0.00	1.73	15.5
1500	1,731 – 2,108	7,240 – 8,140	189.6	13.9	-0.70	2.87	17.7
2000	5,990 – 6,889	13,798 – 14,024	191.9	10.6	-0.15	5.02	18.7
2500*	4,035 – 5,139	14,722 – 15,117	192.5	12.1	-0.15	8.76	19.5
2800*	2,508 – 2,704	14,142 – 14,499	182.5	10.3	0.59	7.33	21.2

Thermal Expansion Coefficient: 3.02E-6 in/in/°F (ASTM C832)
Thermal Shock Loss (after 2000°F): 12.8% MOR Loss (ASTM C-1171)

Abrasion Loss After 1500°F: 4.0 cc
Abrasion Loss After 2500°F: 4.1 cc
Abrasion Loss After 2800°F: 5.4 cc

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.)

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