RENO REFRACTORIES, INC

Reno ElectroCast™ 1116 SiC

TECHNICAL DATA SHEET

ElectroCast 1116 SIC is a high alumina silicon-carbide, no-cement castable designed to be installed by vibration casting into forms.

- Based on Reno's propriety Electro Chemical bond system featuring E11, a nano-fluid electrolyte for ultimate performance.
- Rapid dry out capability while still retaining very low porosity.
- Excellent material for applications in foundries and steel mills for molten iron contact with slag.
- Excellent resistance to iron, slag, thermal shock and oxidation.
- Recommended for use in blast furnace troughs and 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.

Service Temperature:	3000°F / 1648°C	Wt. Required for Estimating:	196 lb/ft^3
Liquid Type:	E11	Storage Life:	6 months
Addition Quantity:	3.6-4.0% (wt)	Shotcrete Binder:	N/A

TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

Al_2O_3	SiC+C	SiO_2	Fe_2O_3	TiO_2	CaO	Alkalies
76.1	16.0	6.5	Nil	1.4	Nil	Nil

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 (g/m^2)
250	984	4,416	195.2	9.4	-0.007			0.57	5.20
750	871	3,638	194.4	11.8	Nil			1.37	6.20
1500	2,362	12,903	197.9	11.4	0.11	2.2 cc		1.51	5.04
2000	5,897	14,086	195.9	10.1	-0.33		21%	2.14	3.23
2500	3,937	14,217	196.2	9.5	-0.48	2.7 cc		1.60	1.25
2800	2,122	13,852	198.0	9.5	0.00			1.90	3.4

TYPICAL HOT PHYSICAL PROPERTIES

Prefired to °F	Hot Modulus of Rupture (psi)	Thermal Conductivity (BTU/ft^2/hr/in/°F)	Thermal Expansion (%)
250		20.1	0.06
750		20.3	0.28
1500		20.8	0.61
2000		21.2	0.76
2500	1,794	21.8	0.86
2800	501	22.4	0.89

Coefficient of Thermal Expansion: 2.97E^{-6} in/in/°F (ASTM C832)

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.)

19-015C (EBCO 19-019) PIN#194720 8-6-2021

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