RENO REFRACTORIES, INC

ElectroPump™ 1116 SIC

TECHNICAL DATA SHEET

ElectroPump™ 1116 SIC is a fused alumina, silicon-carbide, no-cement castable design to be installed by the pump/ shotcrete process.

- Based on Reno's propriety Electro Chemical bond system featuring 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 with harsh conditions.
- Excellent resistance to iron, slag, thermal shock and oxidation.
- Recommended for use in blast furnace troughs and skimmer blocks, tilting runners, 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
Electrolyte Type:	E11
Addition Quantity:	4.0-4.5% (wt.)
Wt. Required for Estimating:	192 lb/ft^3
Storage Life:	6 months

TYPICAL CHEMICAL ANALYSIS (Calcined Basis)

Al_2O_3	SiC + C	TiO_2	SiO_2
76.1	16	1.4	6.5

TYPICAL PHYSICAL PROPERTIES shotcrete 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)	Surface Area (m2/g)
250	893	3,038	194.9	11.8	-0.15	1.6	23.2	2.41
750	842	3,642	192.3	11.8	0.00	2.1	22.8	2.54
1000	924	4,651	190.9	11.6	0.00	2.0	22.0	3.10
1500	2,215	4,633	191.6	16.1	0.11	3.0	21.6	2.15
2000	6,167	14,540	191.8	10.8	-0.15	7.9	21.1	2.14
2500*	4,193	14,101	194.7	11.1	-0.44	10.9	20.8	3.78
2800*	2,451	11,751	196.5	9.8	0.11	6.4	20.4	1.33

Thermal Expansion Coefficient:	3.02E-6 in/in/ °F (ASTM C832)
Thermal Shock Loss(after 2000ºF):	46.8% MOR Loss (ASTM C-1171)
Hot MOR at 2500ºF:	na (ASTM C583 – Orton)
Hot MOR at 2750ºF:	na (ASTM C583 – Orton)
Abrasion Loss After 1500ºF:	5.7 cc (ASTM C704)
Abrasion Loss After 2500ºF:	3.5 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.)

19-016 C Revised TP 1/27/2022 pin#194730

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.

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