Reno ElectroShot™ 1110 SiC

TECHNICAL DATA SHEET

Reno ElectroShot™ 1110 SiC is a high alumina silicon-carbide, no-cement castable designed to be installed using the shotcrete method.

- 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, cupola wells, troughs, tilting runners and taphole blocks. Excellent refractory for foundry holding and pressure-pour furnaces, receiver and discharge spouts, and ductile treatment ladles. Excels where corrosion caused by high velocity slag/metal contact occurs.

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Service Temperature: 3000°F/1648°C Wt. Required for Estimating: 184 lbs/ft³
Liquid Type: E11 Storage Life: 6 months

Addition Quantity: 4.0% - 4.5% Shotcrete Binder: 1.5% Sodium Sllicate

TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

Al ₂ O ₃	SiC	SiO ₂	Fe ₂ O ₃	TiO ₂	CaO	Alkalies
73-77	8-12	8-12	<1	1-2	<1	1

TYPICAL COLD PHYSICAL PROPERTIES

Prefir to °		Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Linear Change (%)	Abrasion Loss (cc)	Thermal Shock Loss (%)	Permeability (mDarcys)	Surface Area (m²/g)
250	903	1,990	186	11.8	0.1				
750	1,245	2,490	184	14.8	-0.1				
150	0 2,276	9,718	184	16.6	-0.2	< 4			
200	0 4,735	13,871	183	13.3	-0.3		7%		
250	3,816	12,301	185	13.5	-0.6	< 4			
280	2,213	11,398	184	13.6	0.0	< 4			

TYPICAL HOT PHYSICAL PROPERTIES

Prefired to °F	Hot Modulus of Rupture (psi)	Thermal Conductivity (BTU/ft²/hr/in/°F)	Thermal Expansion (%)
250		21.2	0.10
750		21.7	0.22
1500		22.0	0.41
2000		22.2	0.35
2500		22.3	0.45
2800		22.4	0.70

Coefficient of Thermal Expansion: 4.21 x 10⁻⁶

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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.