RENO REFRACTORIES, INC **ElectroCoat™ SP**

TECHNICAL DATA SHEET

ElectroCoat™ SP is based on the Reno ElectroBond system of bonding refractories which relies on the generation of electric charges that control the formation of bonds in the material. The main features are:

1. Low porosity due to particle compaction from the electric charges.
2. Very small pore sizes in the matrix prevent penetration of liquids in the structure.
3. Protects the refractory lining from corrosive chemicals.
4. Formation of a non-wetting surface.
5. Molten liquids cannot penetrate the surface.
6. Corrosive vapor infiltration thru the surface is greatly reduced.

ElectroCoat™ SP ceramic coating/treatment is designed for refractory linings exposed to molten slag, ductile iron, and steel. This is a durable coating that seals the surface for protection from gases, fluxes, slags and abrasion. The composition is primarily spinel above 2500ºF giving it excellent resistance to corrosion. Additionally, a coating of ElectroCoat™ SP on the steel shell helps to prevent iron breakout by preventing carbon exchange between the steel and iron.

SERVICE TEMPERATURE:	3100°F	1700°C
MATERIAL DENSITY:	170 lb/ft^3 -wet	2.72 g/cm^3
ELECTROLYTE REQUIRED:	14.8%	
ELECTROLYTE TYPE:	E3	
COVERAGE:	1.77 lbs/ft^2 @ 1/8” thickness	

TYPICAL CHEMICAL ANALYSIS (Weight Percent after calcining)

Al_2O_3	SiO_2	P_2O_5	Fe_2O_3	MgO	Alkalies	Other
75.03	0.44	0.15	0.06	23.18	0.11	0.08

TYPICAL PHYSICAL PROPERTIES

Prefire Temperature (ºF)	(C)	Average Pore Diameter (micron)	Surface Area (m^2/g)	Bulk Density (g/cm^3)	Absolute Density (g/cm^3)	Permeability (mDarcys)	Threshold Pressure (psi)
2000	1093	0.198	3.04	2.35	3.64	0.32	169.2
2732	1500	0.176	2.25	2.33	3.63	8.79	25.19
3000	1649	0.163	0.95	2.35	3.64	1.23	45.33

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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.

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