



**TECHNICAL DATA SHEET**

**RENO PIPE SHIELD** is an ultra-high performance ceramic that has been specially developed for shielding metallic water cooling structures from the intense radiant heat flux encountered in an electric arc furnace. The ceramic coating will greatly reduce heat losses through the water cooling and provide protection from chemical corrosion caused by gasses and slag contact. It is easily installed using spray/gunnite equipment found in most mills. The protection also provides an electrical isolation from conductive slags and scrap. The occurrences of damage from arcing to the metallic panels can be reduced.

**RENO PIPE SHIELD** has high density, low porosity, high strength and excellent resistance to abrasion and thermal shock.

**SERVICE TEMPERATURE:** 3200°F  
**MATERIAL REQUIRED FOR ESTIMATING:** 183 lbs/cf  
**BINDER ADDITION:** Adjust at nozzle  
**STORAGE LIFE:** 1 year

**TYPICAL CHEMICAL ANALYSIS (Calcined Basis)**

Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	TiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	MgO	CaO	Alk.
91	8	0.07	0.1	0.1	0.03	0.6

**TYPICAL PHYSICAL PROPERTIES**

Prefired to °F	Modulus of Rupture, psi	Cold Crushing Strength, psi	Linear Change %	Porosity %
650	1,838	11,450	0.07	20.7
1500	1,626	8,550	-0.04	20.2
2500	3,895	15,824	-0.10	17.8
2800	2,923	9,127	-0.36	17.1
2910	--	--	-0.36	--

**ABRASION LOSS after 2500°F:** <7 cc

**HOT MOR @1500°F (Orton):** 2,578 psi  
**HOT MOR @2500°F (Orton):** 1,074 psi

**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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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.