## TECHNICAL DATA SHEET

ElectroShot<sup>™</sup> 1170 is a mullite based, no cement castable designed to be installed by the shotcrete process.

- Based on Reno's proprietary Electro-Chemical bond and a nano-fluid electrolyte for maximum performance.
- Rapid dry out capability while still retaining very low porosity.
- Micro porosity of bond phase has greatly reduced reactivity to corrosive vapors in the process.
- High hot strength and abrasion resistance.
- Low porosity and permeability for reduced penetration and reaction with molten metals, slags, and vapors.
- Recommended for molten iron transport vessels such as ladles, spouts, covers, etc. where low to moderate slag is present.

Service Temperature:	3000°F
Electrolyte Type:	E11
Addition Quantity:	5.3-6.0% (wt.)
Wt. Required for Estimating:	164 lb/ft <sup>3</sup>
Storage Life:	6 months

## TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

$AI_2O_3$	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Other
70	27	0.7	2	0.35

## **TYPICAL PHYSICAL PROPERTIES**

Prefire Temperature (°F)	Modulus of Rupture (psi)	Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Linear Change (%)	Permeability (mDarcy)	Thermal k (Btu/in/ft2/hr)	Surface Area (m²/g)
250	770	2,065	164.3	15.7	-0.21	3.2	15.0	4.51
750	750	2,492	162.2	16.2	-0.04	8.6	15.6	5.00
1000	699	5,143	162.9	16.2	-0.07	36.5	15.8	4.33
1500	2,739	7,984	164.0	15.9	-0.14	60.1	16.0	.003
2000	3,503	33,539	164.6	14.5	-0.36	106.2	16.1	.006
2500	2,887	48,663	160.1	13.3	-0.25	199.3	16.3	.008
2800	3,072	14,509	156.3	16.2	1.00	167.9	16.3	.009

Thermal Expansion Coefficient: Thermal Cycle Loss (after 2000°F):

2.86E-6 in/in/°F (ASTM C832) 9.6% MOR Loss (ASTM C-1171)

Hot MOR at 2500°F:

Abrasion Loss After 1500°F: Abrasion Loss After 2500°F: 3.9 cc (ASTM C704)

2246 psi (ASTM C583)

3.7 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.)

 19-005 B
 Revised BP 5/16/2021
 pin#191040

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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