



TECHNICAL DATA SHEET

ElectroCast™ 1170 is a mullite based, low moisture castable designed to be installed by vibration casting.

- Based on Reno’s proprietary Electro Chemical bond system featuring an 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: 4.5-5.5% (wt.)
Wt. Required for Estimating: 159 lb/ft³
Storage Life: 6 months

TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

Table with 5 columns: Al2O3, SiO2, Fe2O3, TiO2, Other. Values: 70, 27, 0.7, 2, 0.35

TYPICAL PHYSICAL PROPERTIES

Table with 9 columns: Prefire Temperature (°F), Modulus of Rupture (psi), Cold Crushing Strength (psi), Density (pcf), Porosity (%), Linear Change (%), Permeability (mDarcy) 0.3 Green, Thermal k (Btu/in/ft2/hr), Surface Area (m2/g). Rows for temperatures 250, 750, 1000, 1500, 2000, 2500, 2800.

Thermal Expansion Coefficient: 2.88E-6 in/in/°F (ASTM C832)
Thermal Cycle Loss (after 2000°F): 17% MOR Loss (ASTM C-1171)

Hot MOR at 2500°F: 2133 psi (ASTM C583)
Hot MOR at 2750°F: 789 psi (ASTM C583)

Abrasion Loss After 1500°F: 8.7 cc (ASTM C704)
Abrasion Loss After 2500°F: 4.2 cc (ASTM C704)
Abrasion Loss After 2800°F: 4.4 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.)
19-090 A Revised BP 5/16/2021 pin#191020

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.