



TECHNICAL DATA SHEET

ElectroCast™ 399 is a high alumina, tabular alumina based, no cement castable designed to be installed by vibration casting into forms.

- Based on Reno’s proprietary Electro Chemical bond system.
• Rapid dry out capability while still having low porosity.
• Micro porosity of bond phase has greatly reduced reactivity to furnace and vessel vapors.
• High hot strength and abrasion resistance.
• Low porosity for reduced penetration and reaction with molten metals, slags, and vapors.
• Typical applications are for steel contact, well blocks, ladle linings, tundishes, spouts, and EAF delta.

Service Temperature: 3000°F
Electrolyte Type: E3
Addition Quantity: 3.5-4.5%
Wt. Required for Estimating: 198 lb/ft³
Storage Life: 6 months

TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

Table with 2 columns: Al2O3 (99) and Other (1)

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), Thermal K (Btu/in/ft²/hr), Surface Area (m²/g)

Thermal Expansion Coefficient: 4.56E-6 in/in/°F (ASTM C832)
Thermal Shock Loss (after 2000°F): 52% MOR Loss (ASTM C-1171)
Hot MOR at 2500°F: 1033 psi (ASTM C583-Orton)
Hot MOR at 2750°F: 832 psi (ASTM C583-Orton)
Abrasion Loss After 1500°F: 6.2 cc (ASTM C704)
Abrasion Loss After 2500°F: 2.0 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.)
20-002H Revised BP 5/16/2021 pin#191720

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.