# RENO REFRACTORIES, INC

# ElectroPump™ 370

## TECHNICAL DATA SHEET

**ElectroPump™ 370** is a mullite based, low moisture castable designed to be installed by pump 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.

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|---|---|
| Service Temperature: | 3000°F |
| Electrolyte Type: | E3 |
| Addition Quantity: | 4.25 – 4.75% (wt.) |
| Wt. Required for Estimating: | 158 lb/ft$^3$ |
| Storage Life: | 6 months |

## TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

| $Al_2O_3$ | $SiO_2$ | $Fe_2O_3$ | $TiO_2$ | 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/ft$^2$/hr) | Surface Area (m$^2$/g) |
|---|---|---|---|---|---|---|---|---|
| 250 | 764 | 3,562 | 157 | 15.5 | -0.2 | 4.4885 | 12.4 | 2.701 |
| 750 | 779 | 3,495 | 156 | 16.4 | -0.2 | 6.8183 | 12.0 | 2.577 |
| 1500 | 1,225 | 4,157 | 158 | 16.0 | 0.1 | 9.8555 | 10.8 | 1.548 |
| 2000 | 2,265 | 7,880 | 159 | 15.3 | 0.15 | 31.771 | 10.3 | 0.742 |
| 2500 | 2,895 | 11,860 | 158 | 15.2 | 0.20 | 31.213 | 9.7 | 0.137 |
| 2800 | 2,925 | 4,156 | 156 | 14.8 | 0.07 | 42.427 | 9.3 | 0.111 |

| | |
|---|---|
| Thermal Expansion Coefficient: | 2.94E-6 in/in/°F (ASTM C832) |
| Thermal Cycle Loss (after 2000°F): | 15% MOR Loss (ASTM C-1171) |

| | |
|---|---|
| Abrasion Loss After 1500°F: | 2.5 cc (ASTM C704) |
| Abrasion Loss After 2500°F: | 2.6 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.)
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