RENO REFRACTORIES, INC   **ElectroCast™ 352 AR-AL**

TECHNICAL DATA SHEET

ElectroCast™ 352 AR-AL is a high alumina, silicon-carbide, zirconia, cement castable designed for cast/pump installations.

- Based on Reno's propriety Electro Chemical bond system which utilizes an electrolyte for ultimate performance.
- Extremely small pore size of bond prevents any entry into castable by metal or fluxes.
- Rapid dry out capability while still retaining very low porosity.
- Excellent material for applications in aluminum furnace belly band, troughs, ladles and other areas both below and above the metal line.
- Excellent resistance to alkali.
- Displays excellent non-wetting by aluminum alloys.
- Excellent abrasion resistance.

Service Temperature: 2800°F
Electrolyte Type: E3
Addition Quantity: 4.5-5.2% (wt.)
Wt. Required for Estimating: 162 lb/ft^3
Storage Life: 6 months

TYPICAL CHEMICAL ANALYSIS (Calcined Basis)

Al_2O_3	SiO_2	ZrO_2	SiC	Fe_2O_3	Others
52	31	6-7	8-9	0.7	2.0

TYPICAL PHYSICAL PROPERTIES

Prefire Temperature ($^\circ$F)	Modulus of Rupture (psi)	Cold Crushing Strength (psi)	Density (pcf)	Porosity (%)	Permeability (mDarcy)	Thermal K (Btu/in/ft^2/$^\circ$F)	Linear Change (%)
300	1220	5803	164.0	13.0	0.89	14.3	-0.20
750	1095	5453	158.7	15.9	2.50	12.2	+0.00
1500	2377	11796	162.3	16.0	5.90	11.1	-0.33
2000	3809	15023	158.0	14.1	10.90	10.6	-0.30
2500	5022	11651	157.7	13.7	12.50	10.2	-0.33

Thermal Expansion Coefficient: 2.52E-6 in/in/$^\circ$F (ASTM C832)
Thermal Shock Loss (after 2000°F):   -36% MOR Loss (ASTM C-1171)

HMOR at 1500°F: 2,443 psi (ASTM C583)
HMOR at 2500°F: 1,656 psi (ASTM C583)

Abrasion Loss After 1500°F: 2.1 cc
Abrasion Loss After 2500°F: 3.0 cc

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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