RENO REFRACTORIES, INC

RENO AluSHIELD 60 QH

TECHNICAL DATA SHEET

RENO AluSHIELD 60 QH is a low iron, low cement alumina castable.

FEATURES:

- Excellent resistance to aluminum
- Excellent hot strength at 1500˚F
- Low porosity and permeability, low thermal expansion
- Applications include aluminum furnaces, ladles, troughs, and rotary dross furnaces

METHOD OF INSTALLATION

- Cast, Pump, Shotcrete - applications not directly overhead with R503 activator that must be purchased separately and is calculated at 1.5 % of product weight

SERVICE TEMPERATURE: 2500˚F

MIXING WATER: 5.0 – 5.5% (Casting) 5.5 – 6.0% (Pumping)

TYPICAL CHEMICAL ANALYSIS (Calcined Basis)

Al_2O_3	SiO_2	Fe_2O_3	TiO_2	MgO	CaO	Alkalies	Other
60.9	34.4	0.8	1.3	0.07	1.5	0.2	0.8

TYPICAL PHYSICAL PROPERTIES (Cast)

Prefired to °F	Density pcf	Linear Change %	Modulus of Rupture, psi	Cold Crushing Strength, psi	Abrasion Loss cc
250	153	-0.1	1,895	5,445	--
1000	153	-0.1	1,655	4,400	3.2
1500	152	+0.3	4,000	10,825	3.8
2000	152	+0.4	3,000	6,840	4.6
2500	152	+0.5	3,540	8,500	--

TYPICAL PHYSICAL PROPERTIES (Pump)

Prefired to °F	Density pcf	Porosity %	Linear Change %	Modulus of Rupture, psi	Cold Crushing Strength, psi
250	152	11.9	-0.2	1,890	7,835
1500	150	15.9	-0.6	3,175	9,050
2000	149	15.5	+0.2	3,786	12,710
2500	144	19.6	+1.2	4,575	12,450

HOT MODULUS OF RUPTURE, 1500˚F: 3,730 psi (Cast)

COEFFICIENT OF THERMAL EXPANSION: 2.13 x 10^{-6} in/in/˚F (Cast)

THERMAL SHOCK AFTER 2000°F ASTM C-1171: 35% Loss

ALUMINUM CUP TEST RATING: EXCELLENT

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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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