RENO REFRACTORIES, INC

RENO AluSHIELD 70 QH

TECHNICAL DATA SHEET

RENO AluSHIELD 70 QH is a high alumina, low iron, low cement material.

FEATURES:

- High strength and abrasion resistance
- Excellent non-wetting properties when exposed to molten aluminum
- Excellent thermal shock resistance, with some alkali resistance
- Applications include aluminum furnace hearths, lower walls and ramps; troughs and filter boxes

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
MATERIAL REQUIRED FOR ESTIMATING: 160 lbs./ft³
MIXING WATER: 5.0 – 6.0% (Casting) 5.0 – 6.5% (Pumping)

TYPICAL CHEMICAL ANALYSIS (% Calcined Basis)

Al_2O_3	SiO_2	Fe_2O_3	TiO_2	MgO	CaO
67-73	23-25	< 1.0	1.3	0.1	1.8

TYPICAL PHYSICAL PROPERTIES (Cast)

Prefired to °F	Density pcf	Porosity %	Linear Change %	Modulus of Rupture, psi	Cold Crushing Strength, psi
250	161	8	NIL	2,280	10,600
1500	160	15	-0.1	2,512	13,815
2000	159	20	+0.1	3,600	12,874
2500	159	11	-0.8	3,160	> 15,000

TYPICAL PHYSICAL PROPERTIES (Pump)

Prefired to °F	Density pcf	Porosity %	Linear Change %	Modulus of Rupture, psi	Cold Crushing Strength, psi	Abrasion Loss cc
250	159	--	-0.1	2,469	9,318	--
1500	158	17	-0.4	2,992	9,469	< 5
2000	156	--	+0.5	2,968	8,541	--
2500	157	12	-0.8	3,725	10,000	1.9

HOT MODULUS OF RUPTURE, 1500˚F: 3,741 psi (Pump)

THERMAL SHOCK (AFTER 2200ºF) (ASTM C-1171): 18% MOR Loss (Pump)

CUP TEST: 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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