



RENO REFRACTORIES, INC

RENO AluSHIELD 80 QH

TECHNICAL DATA SHEET

RENO AluSHIELD 80 QH is a high alumina ultralow cement castable for aluminum contact applications.

FEATURES:

- High strength and abrasion resistance
- Excellent thermal cycle resistance
- Excellent non-wetting properties when exposed to molten aluminum
- Good alkali resistance
- Low porosity reduces molten metal penetration and reaction by molten metal
- Applications include aluminum furnaces and troughs.

METHOD OF INSTALLATION

- Cast/Pump/Shotcrete

SERVICE TEMPERATURE:

2500°F

MATERIAL REQUIRED FOR ESTIMATING:

173 lbs./ft³

MIXING WATER:

4.5-5.0% (Casting)

5.0-6.0% (Pumping)

TYPICAL CHEMICAL ANALYSIS (Calcined Basis)

Al ₂ O ₃	SiO ₂	Fe ₂ O ₃	TiO ₂	MgO	CaO	Alkalies	Other
80	13	1	2	0.1	0.8	0.3	2-3

TYPICAL PHYSICAL PROPERTIES (Cast)

Prefired to °F	Density pcf	Linear Change %	Modulus of Rupture, psi	Cold Crushing Strength, psi	"K" Factor Btu*in/hr*ft ² *°F
250	174	Nil	1,750	7,400	12.46
1500	173	-0.1	3,350	>15,000	13.72
2000	172	-0.3	3,400	>15,000	14.24
2500	171	-0.1	3,150	>15,000	14.80

TYPICAL PHYSICAL PROPERTIES (Pump)

Prefired to °F	Density pcf	Porosity %	Linear Change %	Modulus of Rupture, psi	Cold Crushing Strength, psi
250	169	18.85	Nil	1,765	7,950
1500	168	16.46	-0.3	3,300	14,315
2000	167	16.70	-0.1	3,890	14,610

HOT MODULUS OF RUPTURE @ 1500°F: 2727 psi (Cast)

THERMAL CYCLE LOSS: 15%

ABRASION LOSS AFTER 1500°F: <5 cc (Cast) <5 cc (Pump)

CUP TEST: Excellent

17-006 23-071C

603080 – 12/7/23

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.

Reno Refractories, PO Box 201, Morris, Alabama 35116
205.647.0240 | Toll Free 1.800.741.7366

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.

Reno Refractories, PO Box 201, Morris, Alabama 35116
205.647.0240 | Toll Free 1.800.741.7366