



RENO REFRACTORIES, INC

RENO AluSHIELD 50 FS

TECHNICAL DATA SHEET

RENO AluSHIELD 50 FS is a low cement, thermal shock resistant castable containing a high percentage of fused silica.

FEATURES:

- Excellent resistance to aluminum
- Excellent alkali resistance
- Ideal for applications where low thermal expansion, low thermal conductivity and shock resistance are needed.

SERVICE TEMPERATURE: 2500°F
MATERIAL REQUIRED FOR ESTIMATING: 124 lbs./cu. ft.
BINDER ADDITION: 6.0 – 6.5%

TYPICAL CHEMICAL ANALYSIS (Calcined Basis)

| Al ₂ O ₃ | SiO ₂ | Fe ₂ O ₃ | TiO ₂ | MgO | CaO | Alkalies | Other |
|--------------------------------|------------------|--------------------------------|------------------|-----|-----|----------|-------|
| 29 | 66 | 0.6 | 0.6 | 0.1 | 3-4 | 0.1 | 0.1 |

TYPICAL PHYSICAL PROPERTIES (Shotcreted)

| Prefired to °F | Modulus of Rupture, psi | Cold Crushing Strength, psi | Linear Change % |
|----------------|-------------------------|-----------------------------|-----------------|
| 1500 | 1,236 | 6,800 | -0.2 |
| 2500 | 1,295 | 8,389 | -0.3 |

HOT MODULUS OF RUPTURE, 1500F: 1,714 psi
APPARENT POROSITY AFTER 1500°F: 13%
ABRASION LOSS AFTER 1500F: 17 cc
THERMAL SHOCK After 2000°F: 10% Loss
COEFFICIENT OF THERMAL EXPANSION: 1.6 E⁻⁶ in/in/°F
ALUMINUM CUP TEST: Excellent

PACKAGING: 55 lb. Bags, 72 per Pallet (3960 lbs.)

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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.

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