

Self-flow Mixes

Product Data

SUREFLOW 80ALR

SUREFLOW 80ALR is a 80% Alumina, Bauxite based castable designed for Aluminium Contact areas such as Melting and Holding furnace Hearths and lower side walls. **SUREFLOW 80ALR** has excellent strength, alkali and abrasion resistance. It is non-wetting to Aluminium and its alloys at all typical melt temperatures. **SUREFLOW 80ALR** is designed for installation by pouring with no vibration.

Maximum Service Temperature: 1500°C

Aluminium Cup Test Results:

| Sample condition | Test Alloy | Test Temp | Test Duration | <u>Result</u> |
|------------------------|------------|-----------|---------------|----------------------------|
| Pre-fired 5hrs@ 815°C | 7075 | 815°C | 72hrs | No reaction or penetration |
| Pre-fired 5hrs@ 1100°C | 7075 | 815°C | 72hrs | No reaction or penetration |

Bulk Density:

Dried to 110°C 2800 – 2900 kg/m³ Fired to 815°C 2690 - 2790 kg/m³

Cold Crushing Strength:

Fired to 815°C > 900 kg/cm²

Modulus of Rupture:

Fired to 815° C > 180 kg/cm^2

Erosion Loss:

Fired to 815°C < 6 cc

Permanent Linear Change(%):

Green to 110°C 0.0 to -0.1 110°C to 815°C 0.0 to -0.3

Conductivity or "K" Factor:

| Mean Temp. | BTU/ft ² /HR/°F/in | W/mK | |
|-----------------|-------------------------------|------|--|
| 1000°F (540°C) | 14.9 | 2.14 | |
| 1500°F (815°C) | 15.7 | 2.26 | |
| 2000°F (1095°C) | 15.7 | 2.26 | |

Typical Chemical Analysis(%):

| Al_2O_3 | SiO_2 | Fe_2O_3 | TiO_2 | CaO | Alkalies | MgO |
|-----------|---------|-----------|---------|-----|----------|-----|
| 80.1 | 6.9 | 8.0 | 2.2 | 3.2 | 0.2 | 0.2 |

The properties shown on this data sheet represent typical average results generated using standard ASTM test methods (unless otherwise noted) conducted under controlled conditions and should not be considered to be guaranteed specifications. Properties are subject to normal manufacturing statistical standard deviation ranges, and Resco Products, Inc. reserves the right to modify the properties and specifications at any time without prior notice.

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