



# PRODUCT DATA

**Brand Name:**

**R-MAX 85**

**Description:** R-MAX 85 is a Abrasion-Resistant 85% Alumina Castable that features very high abrasion resistance with good flow under vibration. This castable should be installed by vibration casting only.

Physical properties shown are average values of samples taken under controlled conditions  
ASTM test methods used where applicable

**Maximum Service Temperature: 3200°F (1760°C)**

**Typical Water Required for Mixing (by weight) :**

Vibration Cast ..... 4.5%

	Vibration Cast Data	
<b><u>Bulk Density (pcf)</u></b>		
After 220°F (105°C)	178	(2.85 g/cm <sup>3</sup> )
After 1500°F (815°C)	175	(2.80 g/cm <sup>3</sup> )
<b><u>Cold Crushing Strength (psi)</u></b>		
After 1500°F (815°C)	15000	(1050 kg/cm <sup>2</sup> )
<b><u>Thermal Conductivity (K Factor)</u></b>	<u>BTU/ft<sup>2</sup>/hr./°F/inch</u>	<u>W/mK</u>
1000°F (538°C)	17.0	2.46
1500°F (815°C)	17.2	2.49
2000°F (1093°C)	17.5	2.53

<b><u>Permanent Linear Change (%)</u></b>	
Green to 220°F (105°C)	-0.1 to 0.0
220°F (105°C) to 1500°F (815°C)	-0.3 to 0.0

<b><u>Abrasion Loss (using ASTM C-704 Method)</u></b>	
After 1500°F (815°C)	3 cc

**Typical Chemical Analysis (%)**

(Calcined Basis)

Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	85.3
Silica (SiO <sub>2</sub> ) .....	8.7
Lime (CaO) .....	2.8
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	0.8
Titania (TiO <sub>2</sub> ) .....	2.1
Magnesia (MgO) .....	0.2
Alkalies (Na <sub>2</sub> O+K <sub>2</sub> O) .....	0.1

**Standard Packaging:** 55 lb bag. 72 bags per pallet. Bulk packaging available.

Brand Code: 1664

The properties shown on this data sheet represent typical average results using standard ASTM test methods (unless otherwise noted) conducted under controlled condition (using standard rectangular shapes), 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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