



# PRODUCT DATA

**Brand Name:** FURNACUBED™ R-MAX

**Description:** Furnacubed™ R-MAX is a 70% alumina high performance castable designed to provide excellent non-wetting characteristics in aluminum contact applications along with maximum abrasion resistance and excellent strengths This material will give superior performance for the belly band area and below the melt line in secondary melting furnaces. Furnacubed™ R-MAX can be installed via vibration casting, pump casting, and wet shotcrete techniques

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

**Maximum Service Temperature: 2730°F (1500°C)  
2000°F (1093°C) Aluminum non-wetting**

**Dry Material Required per Cubic Foot :** 170 lbs. (approximate)

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

Vibration Cast ..... 5.0 - 5.5%

Pump Cast ..... 6.0 - 6.5%

<u>Bulk Density (pcf)</u>	<u>Vibration Cast Data</u>	
After 1500°F (815°C)	170	(2.72 g/cm <sup>3</sup> )
<u>Cold Crushing Strength (psi)</u>		
After 1500°F (815°C)	22,500	(1575 kg/cm <sup>2</sup> )
<u>Modulus of Rupture (psi)</u>		
After 1500°F (815°C)	2,900	(203 kg/cm <sup>2</sup> )
After 2500°F (1370°C)	2,500	(175 kg/cm <sup>2</sup> )
<u>Permanent Linear Change (%)</u>		
After 2500°F (1370°C)	-0.3 to 0.0	
<u>Abrasion Loss (ASTM C-704)</u>		
After 1500°F (815°C)	Less than 4 cc	
<u>Hot Modulus of Rupture (psi)</u>		
At 1500°F (815°C)	3,300	(231 kg/cm <sup>2</sup> )

**Typical Chemical Analysis (%)**

(Calcined Basis)

Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	71.9
Silica (SiO <sub>2</sub> ) .....	23.2
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	0.8
Titania (TiO <sub>2</sub> ) .....	1.9
Lime (CaO) .....	1.8
Alkalis (Na <sub>2</sub> O+K <sub>2</sub> O) .....	0.4

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

Brand Code: 0582

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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