



# PRODUCT DATA

**Brand Name:**

**FURNACON™ 70**

**Description:**

FURNACON™ 70 resists the most aggressive magnesium-containing aluminum alloys. It is a cost-effective refractory for severe operating conditions. In addition to its non-wetting properties, it has exceptional strength and toughness to resist thermal and mechanical abuse. It is one of the most widely used castables for lower sidewalls and aluminium furnace hearths.

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

**Maximum Service Temperature: 3000°F (1650°C)**

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

Vibration Cast ..... 4.0 - 5.5%

**Bulk Density (pcf)**

	Vibration Cast Data	
After 1500°F (815°C)	167 - 173	(2.67 - 2.77 g/cm <sup>3</sup> )
After 2000°F (1093°C)	165 - 171	(2.64 - 2.74 g/cm <sup>3</sup> )

**Cold Crushing Strength (psi)**

After 1500°F (815°C)	11000 - 17000	(770 - 1190 kg/cm <sup>2</sup> )
After 2000°F (1093°C)	16400 - 22400	(1148 - 1568 kg/cm <sup>2</sup> )

**Modulus of Rupture (psi)**

After 1500°F (815°C)	2800 - 3800	(196 - 266 kg/cm <sup>2</sup> )
After 2000°F (1093°C)	3200 - 4200	(224 - 294 kg/cm <sup>2</sup> )

**Permanent Linear Change (%)**

After 1500°F (815°C)	-0.4 to 0.2
After 2000°F (1093°C)	-0.3 to 0.3

**Apparent Porosity (%)**

After 1500°F (815°C)	3 - 7
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**Thermal Conductivity (K Factor)**

Mean Temperature	BTU/ft <sup>2</sup> /hr./°F/inch	W/mK
1500°F (815°C)	17.1	2.47
2000°F (1093°C)	17.6	2.54

**Typical Chemical Analysis (%)**

(Calcined Basis)

Alumina (Al <sub>2</sub> O <sub>3</sub> ) .....	72.4
Silica (SiO <sub>2</sub> ) .....	21.6
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> ) .....	1.0
Titania (TiO <sub>2</sub> ) .....	2.1
Lime (CaO) .....	2.5
Magnesia (MgO) .....	0.2
Alkalis (Na <sub>2</sub> O+K <sub>2</sub> O) .....	0.2

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

Brand Code: 0870

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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