



PRODUCT DATA

Brand Name:

FURNACUBED™ 70 QT

Description: FURNACUBED™ 70 QT is a 74% alumina, non-wetting to aluminum, low cement castable that can be heated without using the traditional ramp-and-hold heatup schedule. It can be installed by vibration cast, pump cast, self-flow, or shotcreted. This product has excellent thermal shock resistance to 2000°F. It has been used for pumping and shotcreting in aluminum furnace upper and lower walls. **This product is recommended for use only in aluminum furnace applications.**

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

Maximum Service Temperature: 2500°F (1371°C) Aluminum Furnace Non-Metal Contact
2200°F (1204°C) Aluminum Non-Wetting

Typical Water Required for Mixing (by weight) :

Vibration Casting	4.0 - 5.0%
Self Flow Casting	5.0 - 6.0%

Dry Material Required per Cubic Foot:

Shotcrete	170 - 176 lbs
Self Flow Casting	162 - 168 lbs

<u>Bulk Density (pcf)</u>	<u>Shotcrete Data</u>		<u>Self Flow/Pump Casting Data</u>	
	Range	Specific Gravity	Range	Specific Gravity
After 220°F (105°C)	157 - 161	(2.27 - 2.34 g/cm ³)	158 - 168	(2.21 - 2.27 g/cm ³)
After 1500°F (815°C)	155 - 161	(2.24 - 2.30 g/cm ³)	166 - 170	(2.16 - 2.23 g/cm ³)
<u>Cold Crushing Strength (psi)</u>				
After 220°F (105°C)	3400 - 7400	(700 - 980 kg/cm ²)	3400 - 7300	(350 - 630 kg/cm ²)
After 1500°F (815°C)	3000 - 7000	(560 - 840 kg/cm ²)	5500 - 10000	(210 - 490 kg/cm ²)
<u>Modulus of Rupture (psi)</u>				
After 220°F (105°C)	700 - 1100	(77 - 105 kg/cm ²)	1100 - 2100	(49 - 77 kg/cm ²)
After 1500°F (815°C)	700 - 900	(105 - 133 kg/cm ²)	1100 - 2800	(42 - 70 kg/cm ²)
<u>Apparent Porosity (%)</u>				
After 220°F (105°C)	13 - 20		8 - 14	
After 1500°F (815°C)	18 - 22		15 - 18	
<u>Permanent Linear Change (%)</u>				
After 1500°F (815°C)	-0.4 to 0.2		-0.4 to 0.2	

Typical Chemical Analysis (%)

(Calcined Basis)

Alumina (Al ₂ O ₃)	74.0
Silica (SiO ₂)	17.6
Lime (CaO)	1.2
Iron Oxide (Fe ₂ O ₃)	0.9
Titania (TiO ₂)	2.0
Magnesia (MgO)	0.2
Alkalies (Na ₂ O+K ₂ O)	0.2
Other	3.9

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

Brand Code: 4010

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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