PRODUCT DATA

RESCO PRODUCTS, INC.

Brand Name: **FURNACUBED™ 40**

Description: A 40% alumina low-cement castable that offers excellent resistance to alkalis. It contains a non-wetting agent for aluminum contact, and it can be installed via vibration casting, pumping, and shotcreting methods.

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)
2200°F (1240°C) Aluminum Non-Wetting

Typical Water Required for Mixing (by weight) :

Vibration Casting	4.50 to 6.00%
Self Flow/Pump Casting	7.00 to 8.00%
Shotcrete	6.50 to 7.50%

Dry Material Required per Cubic Foot:

Vibration Casting	140 - 144 lbs
Self Flow/Pump Casting	135 - 139 lbs
Shotcrete	142 - 146 lbs

	Vibration Casting Data		Self Flow/Pump Casting Data		Shotcrete Data	
Bulk Density (pcf)						
After 220°F (105°C)	142 - 146	(2.27 - 2.34 g/cm^3)	138 - 142	(2.21 - 2.27 g/cm^3)	132 - 138	(2.11 - 2.21 g/cm^3)
After 1500°F (815°C)	140 - 144	(2.24 - 2.31 g/cm^3)	135 - 139	(2.16 - 2.23 g/cm^3)	128 - 134	(2.05 - 2.15 g/cm^3)
After 2000°F (1093°C)	141 - 145	(2.26 - 2.32 g/cm^3)	135 - 140	(2.16 - 2.24 g/cm^3)	129 - 133	(2.07 - 2.13 g/cm^3)
Cold Crushing Strength (psi)						
After 220°F (105°C)	10000 - 14000	(700 - 980 kg/cm^2)	5000 - 9000	(350 - 630 kg/cm^2)	5400 - 9400	(378 - 658 kg/cm^2)
After 1500°F (815°C)	8000 - 12000	(560 - 840 kg/cm^2)	3000 - 7000	(210 - 490 kg/cm^2)	4900 - 8900	(343 - 623 kg/cm^2)
After 2000°F (1093°C)	7000 - 11000	(490 - 770 kg/cm^2)	4000 - 8000	(280 - 560 kg/cm^2)	3500 - 5900	(245 - 413 kg/cm^2)
Modulus of Rupture (psi)						
After 220°F (105°C)	1100 - 1500	(77 - 105 kg/cm^2)	700 - 1100	(49 - 77 kg/cm^2)	1500 - 1900	(105 - 133 kg/cm^2)
After 1500°F (815°C)	1500 - 1900	(105 - 133 kg/cm^2)	600 - 1000	(42 - 70 kg/cm^2)	1300 - 1700	(91 - 119 kg/cm^2)
After 2000°F (1093°C)	1300 - 1700	(91 - 119 kg/cm^2)	700 - 1100	(49 - 77 kg/cm^2)	1300 - 1700	(91 - 119 kg/cm^2)

Thermal Conductivity (K Factor)	(BTU/ft^2/hr/°F/inch)	W/mK	(BTU/ft^2/hr/°F/inch)	W/mK	(BTU/ft^2/hr/°F/inch)	W/mK
After 1500°F (815°C)	------	------	10.5	1.51	11.8	1.70
After 2000°F (1093°C)	------	------	10.8	1.56	12.2	1.76

Apparent Porosity (%)			
After 220°F (105°C)	7 - 9	10 - 14	13 - 16
After 1500°F (815°C)	13 - 15	13 - 17	16 - 19
Permanent Linear Change (%)			
After 1500°F (815°C)	-0.5 to -0.1	-0.3 to 0.0	-0.3 to 0.0
After 2000°F (1093°C)	-0.7 to -0.3	-0.4 to 0.0	-0.6 to 0.0

Typical Chemical Analysis (%)
(Calcined Basis)

Alumina (Al_2O_3)	41.8
Silica (SiO_2)	48.4
Lime (CaO)	5.1
Iron Oxide (Fe_2O_3)	1.2
Titania (TiO_2)	1.7
Magnesia (MgO)	0.4
Alkalis (Na_2O+K_2O)	1.4

Standard Packaging: 55 lb bag. 72 bags per pallet. Bulk packaging available.
Brand Code: 0874

01/12/17 is the date that this data sheet was updated. Check with your RESCO sales representative or RESCO website to determine you have the current sheet.

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