

## RESCOCAST 4LI

*RESCOCAST 4LI IS A LOW IRON, HIGH PURITY, LIGHTWEIGHT INSULATING CASTABLE IS ESPECIALLY FORMULATED FOR USE IN CONTROLLED ATMOSPHERES SUCH AS METHANE, HYDROGEN AND CARBON MONOXIDE. RESCOCAST 4LI HAS BEEN USED IN MANY HEATER APPLICATIONS SUCH AS PRE-FABRICATED PANELS AND PUMPED OR CAST ROOFS RESULTING IN MINIMUM DOWNTIME. CAST DATA*

**MAXIMUM SERVICE TEMPERATURE (M.S.T.)** (1427°C)

**BULK DENSITY**

@ 110°C	74 - 81	LBS/FT <sup>3</sup>	1185 - 1297	KG/M <sup>3</sup>
@ 815°C	64 - 71	LBS/FT <sup>3</sup>	1025 - 1137	KG/M <sup>3</sup>

**COLD CRUSHING STRENGTH**

@ 815°C	500 - 1000	P.S.I.	35 - 70	KG/CM <sup>2</sup>
@ 1095°C	400 - 700	P.S.I.	28 - 49	KG/CM <sup>2</sup>
@ M.S.T.	400 - 700	P.S.I.	28 - 49	KG/CM <sup>2</sup>

**COLD MODULUS OF RUPTURE**

@ 815°C	150 - 300	P.S.I.	10 - 21	KG/CM <sup>2</sup>
@ 1095°C	150 - 300	P.S.I.	10 - 21	KG/CM <sup>2</sup>
@ M.S.T.	150 - 300	P.S.I.	10 - 21	KG/CM <sup>2</sup>

**PERMANENT LINEAR CHANGE**

@ Green to 110°C	0.0 TO - 0.1 %
@ 110°C to 815°C	0.0 TO - 0.3 %
@ 110°C to 1095°C	- 0.2 TO + 0.1 %
@ 110°C to M.S.T.	0.0 TO + 2.0 %

**CONDUCTIVITY OR "K" FACTOR**

<u>MEAN TEMP</u>	<u>BTU/FT<sup>2</sup>/HR/°F/IN</u>	<u>W/mK</u>
@ 260°C (500°F)	2.70	0.39
@ 540°C (1000°F)	2.30	0.33
@ 815°C (1500°F)	2.60	0.38

**TYPICAL CHEMICAL ANALYSIS (%)**

<b>AL<sub>2</sub>O<sub>3</sub></b>	<b>SiO<sub>2</sub></b>	<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>CaO</b>	<b>MgO</b>	<b>TiO<sub>2</sub></b>	<b>AlK</b>
<b>49.1</b>	<b>36.4</b>	<b>0.8</b>	<b>10.3</b>	<b>0.3</b>	<b>0.7</b>	<b>1.6</b>

The properties shown on this data sheet represent typical average results generated using standard ASTM test methods (unless otherwise noted) conducted under controlled conditions 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. RESCO PRODUCTS disclaims any expressed or implied warranties based on this sheet. 01/08/13 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

# RESCOCAST 4LI

## GUNITED DATA

*RESCOCAST 4LI CAN BE READILY APPLIED BY GUNITE APPLICATION. DATA SHOWN ARE THE AVERAGE RESULTS OF TESTS FOLLOWING THE GUIDELINES SET FORTH IN ASTM C-903-70 "PREPARING REFRACTORY CONCRETE SPECIMENS BY COLD GUNNING."*

Maximum Service Temperature: 2600°F (1427°C)

**Bulk Density:** 80-90 lbs/ft<sup>3</sup> (1280-1440 kg/m<sup>3</sup>)

**Cold Crushing Strength:**

1500°F ( 815°C)	600-1200 psi (42-84 kg/cm <sup>2</sup> )
2000°F (1095°C)	600-1000 psi (42-70 kg/cm <sup>2</sup> )
2600°F (1427°C)	800-1200 psi (56-84 kg/cm <sup>2</sup> )

**Modulus Of Rupture:**

1500°F ( 815°C)	200-400 psi (14-28 kg/cm <sup>2</sup> )
2000°F (1095°C)	200-400 psi (14-28 kg/cm <sup>2</sup> )
2600°F (1427°C)	200-400 psi (14-28 kg/cm <sup>2</sup> )

**Permanent Linear Change(%) :**

@ Green to 110°C	0.0 TO - 0.1 %
@ 110°C to 815°C	0.0 TO - 0.3 %
@ 1095°C	- 0.2 TO + 0.1 %
@ M.S.T.	0.0 TO + 2.0 %

**Porosity(%) :** 45

**Conductivity or "K" Factor:**

Mean Temp.	BTU/ft <sup>2</sup> /Hr/°F/in	W/mK
500°F (260°C)	3.4	0.49
1000°F (540°C)	2.9	0.42
1500°F (815°C)	3.2	0.46