

## RESCOCAST 3

RESCOCAST 3 IS A STANDARD LIGHTWEIGHT HAVING A COMBINATION OF HIGH STRENGTH AND LOW HEAT CONDUCTIVITY. IT HAS BEEN USED SUCCESSFULLY FOR MANY YEARS AS A BACK-UP MATERIAL IN BI-WALL LININGS AS WELL AS SINGLE LAYER LININGS FOR CRUDE HEATERS, FURNACES, AND OTHER PROCESS APPLICATIONS. IN ADDITION TO BEING A GOOD GUNNING MATERIAL, RESCOCAST 3 CAN BE CAST OR TROWEL APPLIED. CAST DATA :

MAXIMUM SERVICE TEMPERATURE (M.S.T.) (1300°C)

BULK DENSITY

After 110°C	65 - 72	LBS/FT <sup>3</sup>	1041 - 1153	KG/M <sup>3</sup>
After 815°C	58 - 64	LBS/FT <sup>3</sup>	929 - 1025	KG/M <sup>3</sup>

COLD CRUSHING STRENGTH

After 815°C	400 - 700	P.S.I.	28 - 49	KG/CM <sup>2</sup>
After 1095°C	600 - 900	P.S.I.	42 - 63	KG/CM <sup>2</sup>
After M.S.T.	500 - 800	P.S.I.	35 - 56	KG/CM <sup>2</sup>

COLD MODULUS OF RUPTURE

After 815°C	100 - 200	P.S.I.	7 - 14	KG/CM <sup>2</sup>
After 1095°C	150 - 250	P.S.I.	10 - 18	KG/CM <sup>2</sup>
After M.S.T.	150 - 250	P.S.I.	10 - 18	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 - 0.4 %
110°C to 1095°C	- 0.2 TO - 0.8 %
110°C to M.S.T.	- 0.4 TO - 1.5 %

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)	2.3	0.33
@ 540°C (1000°F)	1.8	0.26
@ 815°C (1500°F)	2.1	0.30

TYPICAL CHEMICAL ANALYSIS (%)

AL <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	CaO	MgO	TiO <sub>2</sub>	ALK
28.5	44.9	6.9	13.6	1.0	2.0	2.8

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 3

RESCOCAST 3 CAN ALSO BE READILY APPLIED BY GUNITE APPLICATION. DATA SHOWN ARE AVERAGE RESULTS OF TESTS FOLLOWING THE GUIDE LINES SET FORTH IN ASTM C-903-70 "PREPARING REFRACTORY CONCRETE SPECIMEN'S BY COLD GUNNING".

MAXIMUM SERVICE TEMPERATURE (M.S.T.) (1300°C)

## BULK DENSITY

After 815°C                      70 - 80      LBS/FT<sup>3</sup>                      1120 - 1280      KG/M<sup>3</sup>

## COLD CRUSHING STRENGTH

After 815°C                      500 - 900      P.S.I.                      35 - 63                      KG/CM<sup>2</sup>  
After 1095°C                      600 - 900      P.S.I.                      42 - 63                      KG/CM<sup>2</sup>  
After M.S.T.                      600 - 900      P.S.I.                      42 - 63                      KG/CM<sup>2</sup>

## COLD MODULUS OF RUPTURE

After 815°C                      300 - 500      P.S.I.                      21 - 35                      KG/CM<sup>2</sup>  
After 1095°C                      250 - 450      P.S.I.                      16 - 32                      KG/CM<sup>2</sup>  
After M.S.T.                      250 - 450      P.S.I.                      16 - 32                      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 - 0.4 %  
110°C to 1095°C                      - 0.2 TO - 0.8 %  
110°C to M.S.T.                      - 0.4 TO - 1.5 %

## 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)	2.8	0.41
@ 540°C (1000°F)	2.3	0.33
@ 815°C (1500°F)	2.6	0.38

## POROSITY

55 PERCENT @ 1000°F (540°C) (CAST)  
50 PERCENT @ 1000°F (540°C) (GUNITED)

## ASTM CLASS C-401

CLASSIFICATION "P"