

## QUIKLITE 3A

*QUIKLITE 3A IS A LIGHTWEIGHT INSULATING CASTABLE WHICH HAS A SERVICE LIMIT TEMPERATURE OF 1370°C AND LESS THAN 1 PERCENT LOW IRON CONTENT. IT IS USED PRIMARILY WHERE REDUCING ATMOSPHERES MAY BE PRESENT. IT IS FORMULATED FOR RAPID HEATUP WITHOUT USING THE TRADITIONAL RAMP AND HOLD HEATING SCHEDULE QUIKLITE 3A CAN BE READILY APPLIED BY CASTING OR GUNITE APPLICATION.*

**MAXIMUM SERVICE TEMPERATURE (M.S.T.)** (1370°C)

**BULK DENSITY**

@ 110°C	64 - 70	LBS/FT <sup>3</sup>	1025 - 1121	KG/M <sup>3</sup>
@ 815°C	57 - 62	LBS/FT <sup>3</sup>	913 - 993	KG/M <sup>3</sup>

**COLD CRUSHING STRENGTH**

@ 815°C	300 - 450	P.S.I.	21 - 32	KG/CM <sup>2</sup>
@ 1095°C	300 - 450	P.S.I.	21 - 32	KG/CM <sup>2</sup>
@ M.S.T.	400 - 550	P.S.I.	28 - 38	KG/CM <sup>2</sup>

**COLD MODULUS OF RUPTURE**

@ 815°C	100 - 200	P.S.I.	7 - 14	KG/CM <sup>2</sup>
@ M.S.T.	150 - 250	P.S.I.	10 - 18	KG/CM <sup>2</sup>

**PERMANENT LINEAR CHANGE**

@ 815°C	- 0.30	TO	- 0.80 %
@ M.S.T.	- 0.80	TO	- 1.30 %

**POROSITY**

@ 540°C	50 %
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**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)	1.40	0.20
@ 540°C (1000°F)	1.60	0.23
@ 815°C (1500°F)	1.70	0.26
@ 1095°C (2000°F)	1.85	0.27

**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>
50.7	35.1	0.7	9.9	0.3	0.6	2.0

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.

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# QUIKLITE 3A

QUIKLITE 3A 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.) (1370°C)

## BULK DENSITY

@ 815°C                      65 - 75              LBS/FT<sup>3</sup>              1040 - 1200              KG/M<sup>3</sup>

## COLD CRUSHING STRENGTH

@ 815°C                      350 - 500              P.S.I.                      25 - 35                      KG/CM<sup>2</sup>  
@ 1095°C                      350 - 500              P.S.I.                      25 - 35                      KG/CM<sup>2</sup>  
@ M.S.T.                      350 - 500              P.S.I.                      25 - 35                      KG/CM<sup>2</sup>

## COLD MODULUS OF RUPTURE

@ 815°C                      150 - 250              P.S.I.                      10 - 17                      KG/CM<sup>2</sup>  
@ 1095°C                      150 - 250              P.S.I.                      10 - 17                      KG/CM<sup>2</sup>  
@ M.S.T.                      250 - 450              P.S.I.                      10 - 17                      KG/CM<sup>2</sup>

## PERMANENT LINEAR CHANGE

@ 815°C    - 0.10 TO - 0.30 %  
@ 1095°C    - 0.30 TO - 0.60 %  
@ M.S.T.    - 0.40 TO - 1.10 %

## 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)	1.85	0.27
@ 540°C (1000°F)	2.35	0.33
@ 815°C (1500°F)	2.50	0.35

PACKAGING                                      25 KG BAGS

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

ASTM CLASS C-401                              CLASSIFICATION "Q"