

Exo-Set UNO A

Product Number 17436

Date 2/10/2014

Product Description

An one component, rapid hardening, chemically bonded, high purity alumina based refractory castable. Exhibits excellent bonding adherence to old refractory - hot or cold. Non wetting to aluminum.

Typical Applications

As a primary lining or for maintenance repairs of metal contact areas in aluminum melting and holding furnaces, ladles, troughs and launders. Excellent resistance to aggressive, high magnesium aluminum alloys.

Service limit - 2500°F 1371 °C

Std. package 55 # / 25 kg Bag

Density to place 172 pcf 2,755 kg/m³

Water range per std. package:

Density in service 172 pcf 2,755 kg/m³

Casting 1.5 to 1.8 qts 1.4 to 1.6 l

Min time before firing none

Pumping 1.6 to 2.0 qts 1.6 to 1.8 l

Chemistry % (calcined)

Al ₂ O ₃	85.4	P ₂ O ₅	4.4
SiO ₂	2.7	Other	7.4

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	13.7	1.97
1000F / 540C	13.4	1.92
1500F / 815C	12.8	1.84
2000F / 1090C	13.0	1.87

Abrasion Loss

per ASTM C 704
after 1500 F

10 cc

Coefficient of Thermal Expansion

(reversible)

4.8 x 10⁻⁶ in/in F

8.6 x 10⁻⁶ m/m C

Temperature per <u>ASTM C113 / C865</u>	Linear Change per <u>ASTM C113 / C179</u>	Cold MOR		CCS		Hot MOR	
		per ASTM C133 <u>psi</u>	<u>MPa</u>	per ASTM C133 <u>psi</u>	<u>MPa</u>	per ASTM C583 <u>psi</u>	<u>MPa</u>
230 F / 110 C	-0.1%	1100	7.6	5000	34		
1500 F / 815 C	-0.3%	1200	8.3	4000	28	1700	11.7
1800 F / 980 C	-0.3%	1500	10.3		0	1100	7.6
2000 F / 1090 C	-0.4%	2000	13.8		0	350	2.4
2500 F / 1370 C	-1.1%	2800	19.3		0		0.0

Other Data

Heat Up Guide
Schedule D

ASTM Class

Note:

All data are averaged results of ASTM tests (where applicable) on laboratory cast specimens. Reasonable variations in data can be expected. Data is not to be used for specification purposes. Product data is periodically updated to reflect product / raw material / process / testing changes. Please consult your Plico representative to make sure you have the most current data.

Plico Refractories are manufactured by Plibrico Company LLC, USA.