

Exo-Set UNO M

Product Number 17434

Date 2/10/2014

Product Description

An one component, rapid hardening, chemically bonded, mullite 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.

Service limit - 2500°F 1371 °C

Std. package 55 # / 25 kg Bag

Density to place 146 pcf 2,338 kg/m³

Water range per std. package:

Density in service 146 pcf 2,339 kg/m³

Casting 1.8 to 2.1 qts 1.7 to 2.0 l

Min time before firing none

Pumping 2.0 to 2.3 qts 1.9 to 2.2 l

Chemistry % (calcined)

Al ₂ O ₃	63.3	P ₂ O ₅	4.3
SiO ₂	22.8	Other	9.5

Thermal Conductivity

	btu*in/hr*ff ² *°F	w/m°C
500F / 260C	8.1	1.16
1000F / 540C	8.3	1.19
1500F / 815C	9.1	1.31
2000F / 1090C	10.5	1.51

Abrasion Loss

per ASTM C 704
after 1500 F

12 cc

Coefficient of Thermal Expansion
(reversible)

3.6 x 10⁻⁶ in/in F

6.4 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	4400	30		
1500 F / 815 C	-0.2%	1000	6.9	3200	22	1500	10.3
1800 F / 980 C	-0.3%	1050	7.2		0	1100	7.6
2000 F / 1090 C	-0.5%	1600	11.0		0	250	1.7
2500 F / 1370 C	-1.2%	2100	14.5		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.