

**Exo-Set UNO A G**

Product Number 17445

Date 2/10/2014

**Product Description**

An one component, rapid hardening, chemically bonded, high purity alumina based refractory gun mix. Exhibits excellent bonding adherence to old refractory. May be gunned hot or cold. Do not predampen. 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** 165 pcf 2,643 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 165 pcf 2,643 kg/m<sup>3</sup>

**Casting** to qts 0.0 to 0.0 l

**Min time before firing** none

**Pumping** to qts 0.0 to 0.0 l

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	81.7	P <sub>2</sub> O <sub>5</sub>	4.9
SiO <sub>2</sub>	4.9	Other	8.4

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	13.5	1.94
1000F / 540C	13.2	1.9
1500F / 815C	12.6	1.81
2000F / 1090C	12.8	1.84

**Abrasion Loss**

per ASTM C 704  
after 1500 F

cc

**Coefficient of Thermal Expansion**

(reversible)

4.8 x 10<sup>-6</sup> in/in F

8.6 x 10<sup>-6</sup> 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%	900	6.2	3500	24		
1500 F / 815 C	-0.3%	900	6.2	2000	14		0.0
2000 F / 1090C	-0.5%	1600	11.0		0		0.0
			0.0		0		0.0
			0.0		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 gunned 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.*