



**Plico Gun Mix HyREZIST TS Mix**

Product Number 13633

Date 2/10/2014

**Product Description**

A fused silica-mullite, thermal shock resistant, high strength refractory gun mix.

**Service limit -** 2500°F 1,371 °C

**Std. package** 55 # / 25 kg Bag

**Density to place** 120 pcf 1,922 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 120 pcf 1,922 kg/m<sup>3</sup>

**Casting** to qts 0.0 to 0.0 l

**Min time before firing** 24 hr

**Pumping** to qts 0.0 to 0.0 l

**Chemistry % (calcined)**

Al <sub>2</sub> O <sub>3</sub>	35.9	P <sub>2</sub> O <sub>5</sub>	
SiO <sub>2</sub>	56.5	Alk.	0.2
Fe <sub>2</sub> O <sub>3</sub>	0.4	MgO	0.1
CaO	6.1	SiC	
TiO <sub>2</sub>	0.8	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	6.1	0.87
1000F / 540C	6.4	0.92
1500F / 815C	7.1	1.02
2000F / 1090C	8.0	1.15

**Abrasion Loss**

per ASTM C 704  
after 1500 F

20 cc

**Coefficient of Thermal Expansion**  
(reversible)

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

2.5 x 10<sup>-6</sup> m/m C

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR per ASTM C133		CCS per ASTM C133		Hot MOR per ASTM C583	
		psi	MPa	psi	MPa	psi	MPa
230 F / 110 C	0.0%	1500	10.3	12500	86		
1500 F / 815 C	-0.2%	900	6.2	8500	59	1500	10.3
2000 F / 1090C	-0.3%	700	4.8		0	1000	6.9
2500 F / 1370 C	-0.6%	500	3.4		0		0.0
			0.0		0		0.0

**Other Data**

**Heat Up Guide**

Schedule B

**ASTM Class**

C 401 Class C

Regular Castable

**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.*