

**Plico Stix SR 90**

Product Number 12020

Date 2/10/2014

**Product Description**

A high alumina, based, phosphate bonded, plaster type refractory servicing mix. Non wetting to aluminum alloys.

**Service limit -** 3300°F 1,815 °C

**Std. package** 50 # / 22.7 kg Pail

**Density to place** 175 pcf 2,803 kg/m<sup>3</sup>

**Water range per std. package:**

**Density in service** 160 pcf 2,563 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>	87.7	P <sub>2</sub> O <sub>5</sub>	2.7
SiO <sub>2</sub>	7.6	Alk.	0.2
Fe <sub>2</sub> O <sub>3</sub>	0.7	MgO	0.1
CaO	0.1	SiC	
TiO <sub>2</sub>	0.6	ZrO <sub>2</sub>	
		Other	

**Thermal Conductivity**

	btu*in/hr*ff <sup>2</sup> *°F	w/m°C
500F / 260C	0	0
1000F / 540C	0	0
1500F / 815C	0	0
2000F / 1090C	0	0

**Abrasion Loss**

per ASTM C 704  
after 1500 F

cc

**Coefficient of Thermal Expansion**  
(reversible)

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

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

Temperature per ASTM C113 / C865	Linear Change per ASTM C113 / C179	Cold MOR		CCS		Hot MOR	
		per ASTM C133 psi	MPa	per ASTM C133 psi	MPa	per ASTM C583 psi	MPa
230 F / 110 C		0.0		1250	9		
		0.0			0		0.0
		0.0			0		0.0
		0.0			0		0.0
		0.0			0		0.0

**Other Data**

**Heat Up Guide**

**ASTM Class**

C 673 90% Alumina

**Note:**

All data are averaged results of ASTM tests (where applicable).

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.*