



# Plibrico Company, LLC

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# Technical Data Sheet

## Pligun SiC HP8

Product # 13074

Available Internationally As:

Plico Gun Mix SiC HP8

### Product Description:

Pligun® SiC HP8 is an 80% silicon carbide, high performance gun mix and was developed to meet the specifications for waste incineration boiler tube sheet refractory. Product advantages include both hot and cold high mechanical strength, high thermal conductivity, relatively low abrasion loss, resistance to acid slag corrosion, and good gunability with low rebound.

**Standard Packaging:** 55 # / 25 kg Bag

**Shelf Life:** 9 months

**Service Limit:** 2700 °F 1480 °C

**Contact Limit:** N/A °F N/A °C

**Bulk Density - In Service:** 150 pcf 2403 kg/m<sup>3</sup>

**Bulk Density - To Place:** 150 pcf 2403 kg/m<sup>3</sup>

**Minimum Time To Firing:** 24 hr

**Abrasion Loss after 1500°F / 815°C**  
per ASTM C704

14 cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	11.5	Alk	0.1	MgO	0.1
SiO <sub>2</sub>	3.6	TiO <sub>2</sub>	0.2	ZrO <sub>2</sub>	
CaO	4.7	P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.2	SiC	79.7		

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min			
	max			
Pumping	min			
	max			

### Coefficient of Thermal Expansion (reversible):

3.3 x 10<sup>-6</sup> in/in/°F / 5.9 x 10<sup>-6</sup> mm/mm/°C

Thermal Conductivity	btu*in/hr*ft <sup>2</sup> *°F	W/m°C
500°F / 260°C	41.2	5.9
1000°F / 540°C	31.6	4.6
1500°F / 815°C	37.6	5.4
2000°F / 1090°C	58.6	8.4

Temperature		Linear Change% per ASTM C113	CCS per ASTM C133		Cold MOR per ASTM C133		Hot MOR per ASTM C583	
°F	°C		psi	MPa	psi	MPa	psi	MPa
230	110	0.0	8000	55.0	2000	13.8		
1000	540	-0.2			1500	10.3		
1500	820	-0.3	8000	55.2	1600	11.0	2000	13.8
2000	1090	-0.4			2100	14.5	2100	14.5
2500	1370	1.0			3100	21.4		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule B

ASTM Class: C 401 Class D Regular Castable

Refractory material should be stored in a cool, dry environment.

**Note:** All data are averaged results of ASTM tests (where applicable) on laboratory 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 and/or testing changes. Please consult your Plibrico representative to make sure you have the most current data.