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Technical Data Sheet Pligun HyREZIST TS Mix

Product # 13633

Available Internationally As: Plico Gun HyREZIST TS Mix

Product Description:

Pligun® HyREZIST® TS Mix is a thermal shock resistant gunning material based around a fused silica/mullite matrix with a modified high cement bond. Product advantages include low thermal expansion, high fracture resistance (1500°F to 2300°F), good physical strength and abrasion resistance, and no special gunning installation requirements.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 9 months

Service Limit: 2500 °F 1370 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 120 pcf 1922 kg/m³

Bulk Density - To Place: 120 pcf 1922 kg/m³

Minimum Time To Firing: 24 hr

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

20 cc

Chemistry (calcined) %					
Al ₂ O ₃	35.9	Alk	0.2	MgO	0.1
SiO ₂	56.5	TiO ₂	0.8	ZrO ₂	
CaO	6.1	P ₂ O ₅		Other	
Fe ₂ O ₃	0.4	SiC			

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

Coefficient of Thermal Expansion (reversible):

1.4 x 10⁻⁶ in/in/°F / 2.5 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	6.1	0.9
1000°F / 540°C	6.4	0.9
1500°F / 815°C	7.1	1.0
2000°F / 1090°C	8.0	1.2

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	12500	86.0	1500	10.3		
1500	820	-0.2	8500	59.0	900	6.2	1500	10.3
2000	1090	-0.3			700	4.8	1000	6.9
2500	1370	-0.6			500	3.4		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule B

ASTM Class: C 401 Class C 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.