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Technical Data Sheet
Plicast Floor Guard HT

Product # 14290

Available Internationally As: Plico Castable Floor Guard HT

Product Description:
Plicast® Floor Guard HT is designed for hot flooring and splash pads. This product maintains good strength, abrasion and spall resistance above 1500°F. Ready to use in as little as 16 hours, the HT floor guard develops strength rapidly with a minimum cure period. Plicast Floor Guard HT can be installed by casting or pumping.

Standard Packaging: 55 # / *25 kg* Bag

Shelf Life: 12 months

Service Limit: 2500 °F *1370 °C*

Contact Limit: N/A °F *N/A °C*

Bulk Density - In Service: 135 pcf *2163 kg/m³*

Bulk Density - To Place: 135 pcf *2163 kg/m³*

Minimum Time To Firing: 16 hr

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

Chemistry (calcined) %					
Al_2O_3	44.5	Alk	0.5	MgO	0.2
SiO_2	40.9	TiO_2	2.1	ZrO_2	
CaO	9.3	P_2O_5		Other	
Fe_2O_3	2.4	SiC			

Water Range Per Standard Package		%	Quarts	*Liters*
Vib Casting	min			
	max			
Casting	min	9.4	2.5	*2.4*
	max	10.6	2.8	*2.7*
Pumping	min	10.2	2.7	*2.6*
	max	11.3	3.0	*2.8*

Coefficient of Thermal Expansion (reversable):	
3.0 x 10^{-6} in/in/°F /	*5.4 x 10^{-6} mm/mm/°C*

Thermal Conductivity	btu*in/hr*ft²*°F	*W/m°C*
500°F / *260°C*	7.0	*1.0*
1000°F / *540°C*	6.8	*1.0*
1500°F / *815°C*	6.8	*1.0*
2000°F / *1090°C*	7.5	*1.1*

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*
16 hr	*-10*	0.0	2100	*14.0*				
24 hr			6500	*45.0*				
230	*110*		8500	*58.6*				
1500	*820*	-0.3	6000	*41.4*			2100	*14.5*
2000	*1090*	-0.5					1650	*11.4*

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide:

ASTM Class: C 401 Class C

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.