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Technical Data Sheet Plicast Fast Track 75-31

Product # 14287

Available Internationally As: Plico Castable Fast Track 75-31

Product Description:

A bauxite based, high strength, refractory castable which may be dried out / heated on an accelerated schedule and minimum cure time.

Note: Cure times less than 8 hrs will result in lower strengths (see other data).

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 9 months

Service Limit: 3100 °F 1700 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 168 pcf 2691 kg/m³

Bulk Density - To Place: 168 pcf 2691 kg/m³

Minimum Time To Firing: 4 hr

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

9 cc

Chemistry (calcined) %					
Al ₂ O ₃	76.2	Alk	0.2	MgO	0.1
SiO ₂	18.7	TiO ₂	1.8	ZrO ₂	
CaO	1.5	P ₂ O ₅		Other	
Fe ₂ O ₃	1.5	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	6.1	1.6	1.5
	max	6.7	1.8	1.7
Pumping	min	6.5	1.7	1.6
	max	7.1	1.9	1.8

Coefficient of Thermal Expansion (reversible):

4.4 x 10⁻⁶ in/in/°F / 7.9 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	14.1	2.0
1000°F / 540°C	13.6	2.0
1500°F / 815°C	13.6	2.0
2000°F / 1090°C	14.1	2.0

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	-0.1	6500	45.0	1600	11.0		
1500	820	-0.2	7800	54.0	1800	12.4	2200	15.2
2000	1090	-0.4			2100	14.5	4000	27.6
2500	1370	-0.2			2500	17.2	1000	6.9
3000	1650	0.6			2800	19.3		

Other Data: 8 hr Cured Data: Cold MOR 230F - 1100 psi, 1500F - 1500 psi

Release Date: 1 Aug 2019

Heat Up Guide: Schedule FT

ASTM Class: C 401 Class F

Low Cement 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.