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Technical Data Sheet Plicast Fast Track 65-31

Product # 14288

Available Internationally As: Plico Castable Fast Track 65-31

Product Description:

Plicast Fast Track 65-31 is a mullite based, low cement castable designed to be put into service more rapidly than traditional low and ultra-low cement materials. Cure times can be reduced to 4 hours! However, for ideal physical characteristics 8 hours is recommended. After curing, heat can be as fast as 100°F/hr with no temperature hold - refer to Plibrico Bake Out Schedule FT for specifics.

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: 152 pcf 2435 kg/m³

Bulk Density - To Place: 152 pcf 2435 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	63.6	Alk	0.3	MgO	0.1
SiO ₂	32.2	TiO ₂	1.3	ZrO ₂	
CaO	1.6	P ₂ O ₅		Other	
Fe ₂ O ₃	0.9	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):

3.5 x 10⁻⁶ in/in/°F / 6.3 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	10.5	1.5
1000°F / 540°C	11.1	1.6
1500°F / 815°C	11.8	1.7
2000°F / 1090°C	12.4	1.8

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	6000	41.0	1500	10.3		
1500	820	-0.2	7500	52.0	1800	12.4	2200	15.2
2000	1090	-0.5			2100	14.5	3400	23.4
2500	1370	0.6			2500	17.2	900	6.2
3000	1650	1.0			2800	19.3		

Other Data: 8 hr Cured Data: Cold MOR 230F - 1000 psi, 1500F - 1400 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.