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Technical Data Sheet Plicast HyMOR 80 C KK

Product # 3215

Available Internationally As: Plico Castable LC 80 C KK

Product Description:

A coarse grain, bauxite based, low cement castable with excellent resistance to thermal cycling, impact and fracture

Standard Packaging: 1300 # / 591 kg Super Sack

Shelf Life: 6 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: 16 hr

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

6 cc

Chemistry (calcined) %					
Al ₂ O ₃	81.1	Alk	0.2	MgO	0.3
SiO ₂	12.8	TiO ₂	2.4	ZrO ₂	
CaO	2.0	P ₂ O ₅		Other	
Fe ₂ O ₃	1.2	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min	5.4	33.8	31.9
	max	6.2	38.8	36.7
Casting	min	6.2	38.8	36.7
	max	7.0	43.8	41.4
Pumping	min			
	max			

Coefficient of Thermal Expansion (reversible):

4.3 x 10⁻⁶ in/in/°F / 7.7 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	0.0	6500	45.0	1750	12.1		
1500	820	-0.2	8500	59.0	2400	16.6	3000	20.7
1800	980	-0.3			2500	17.2	3300	22.8
2000	1090						3000	20.7
2500	1370						900	6.2

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule AT AS or AT AS

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.