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Technical Data Sheet Plicast HyMOR AZS KK

Product # 14286

Available Internationally As: Plico Castable LC AZS KK

Product Description:

Plicast® HyMOR® AZS KK is a low cement castable based on synthetic AZS (alumina-zirconia-silica) aggregate and a matrix enhanced with fine silicon carbide. Product benefits include high density and low porosity, high crushing strength, very good hot strength, low abrasion loss less than 5cc, and a moderate coefficient of thermal expansion. Plicast HyMOR AZS KK can be placed by vibration, casting or pumping.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: 2800 °F 1540 °C

Contact Limit: N/A °F N/A °C

Bulk Density - In Service: 180 pcf 2884 kg/m³

Bulk Density - To Place: 180 pcf 2884 kg/m³

Minimum Time To Firing: 16 hr

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

5 cc

Chemistry (calcined) %					
Al ₂ O ₃	51.8	Alk	0.2	MgO	
SiO ₂	19.2	TiO ₂	0.4	ZrO ₂	21.8
CaO	1.6	P ₂ O ₅		Other	
Fe ₂ O ₃	0.3	SiC	4.8		

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	5.8	1.5	1.5
	max	6.6	1.7	1.7
Pumping	min			
	max			

Coefficient of Thermal Expansion (reversible):

3.8 x 10⁻⁶ in/in/°F / 6.8 x 10⁻⁶ mm/mm/°C

Thermal Conductivity	btu*in/hr*ft ² *°F	W/m°C
500°F / 260°C	13.2	1.9
1000°F / 540°C	13.8	2.0
1500°F / 815°C	14.5	2.1
2000°F / 1090°C	15.1	2.2

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	8500	59.0	1550	10.7		
1500	820	-0.2	8800	61.0	1700	11.7	2100	14.5
2000	1090	-0.3			2100	14.5	2500	17.2
2500	1370	-0.4			2600	17.9		

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule C or C-Linear

ASTM Class: C 401 Class D 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.