

Technical Data Sheet

Durafloor II

Product # 3321

Durafloor II

Available Internationally As:

Product Description:

A spall resistant, pumpable, fireclay castable designed for hot flooring and splash pads around furnaces. Develops full hydraulic strength after 48 hr cure but can be used in as little as 16 hr with reduced cured strength.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 12 months

Service Limit: $2000 \,^{\circ}\text{F}$ $1090 \,^{\circ}\text{C}$ Contact Limit: $\text{N/A} \,^{\circ}\text{F}$ $\text{N/A} \,^{\circ}\text{C}$

Bulk Density - In Service: 128 pcf 2051 kg/m³

Bulk Density - To Place: 128 pcf 2051 kg/m³

Minimum Time To Firing: 24 hr

Water Range Per Standard Package		%	Quarts	Liters	
Vib	min				
Casting	max				
Casting	min	9.0	2.4	2.3	
	max	10.5	2.8	2.6	
Pumping	min	9.5	2.5	2.4	
	max	10.5	2.8	2.6	

Abrasion Loss after 1500°F / 815°C

per ASTM C704

N/A cc

Chemistry (calcined) %						
Al ₂ O ₃	34.9	Alk	0.6	MgO	0.8	
SiO ₂	44.6	TiO ₂	1.8	ZrO ₂		
CaO	15.9	P ₂ O ₅		Other		
Fe ₂ O ₃	1.4	SiC				

Coefficient of Thermal Expansion (reversable):

 $3.0 \times 10^{-6} \text{ in/in/}^{\circ}\text{F} / 5.4 \times 10^{-6} \text{ mm/mm/}^{\circ}\text{C}$

Thermal Conductivity	btu*in/hr*ft²*°F	W/m°C
500°F / 260°C	6.5	0.94
1000°F / <i>540</i> °C	6.6	0.95
1500°F / <i>815</i> °C	6.8	0.98
2000°F / 1090°C	6.9	0.99

Temperature				CS FM C133		Cold MOR per ASTM C133		Hot MOR per ASTM C583	
°F	°C	Change% per ASTM C113	psi	MPa	psi	MPa	psi	MPa	
250	120	0.0	9000	62.0	1700	11.7			
500	260	-0.1	6500	45.0	1250	8.6			
1000	540	-0.2	5500	37.9	1000	6.9			
1500	820	-0.3	3000	20.7	500	3.4			
1800	980	-0.4	2000	13.8	250	1.7			

Other Data:

Release Date: 30 Nov 2023

Heat Up Guide: N/A

ASTM Class:

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.