



Plibrico Company, LLC

1935 Techny Road - Unit 16
 Northbrook, IL 60062
 (312) 337-9000
 www.plibrico.com

Technical Data Sheet Super Demon Air Set Dry

Product # 17003

Available Internationally As: Super Demon Air Set Dry

Product Description:

A wet, air setting, super duty refractory mortar. Coverage 350-400lb (160-180 kg) per 1000 standard firebrick

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 12 months

Service Limit: 3000 °F 1650 °C

Contact Limit: N/A °F N/A °C

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

Bulk Density - To Place: pcf kg/m³

Minimum Time To Firing: 0 hr

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

N/A cc

Chemistry (calcined) %					
Al ₂ O ₃	43.1	Alk	3.4	MgO	0.1
SiO ₂	50.8	TiO ₂	1.3	ZrO ₂	
CaO	0.1	P ₂ O ₅		Other	
Fe ₂ O ₃	1.2	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min	14.4	3.8	3.6
	max	15.5	4.1	3.9
Pumping	min			
	max			

Coefficient of Thermal Expansion (reversible):	
x 10 ⁻⁶ in/in/°F	x 10 ⁻⁶ mm/mm/°C

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

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		2500	17.0				

Other Data: Bonding Strength ASTM C-198: 230°F – 600 psi / 2910°F – 1200 psi
 Max Grain Size – 48 mesh

Release Date: 1 Aug 2019

Heat Up Guide:

ASTM Class: C 1655 Super

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.