



# Plibrico Company, LLC

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# Technical Data Sheet Ultra Demon Air Set Wet

Product # 17005

Available Internationally As:

Ultra Demon Air Set Wet

### Product Description:

A wet, air setting, super duty refractory mortar. Coverage 350-400lb (160-180 kg) per 1000 standard firebrick. May be used for hot spot/ fill injection with a suitable grout pump.

**Standard Packaging:** 50 # / 23 kg Pail

**Shelf Life:** 9 months

**Service Limit:** 3000 °F 1650 °C

**Contact Limit:** N/A °F N/A °C

**Bulk Density - In Service:** 120 pcf 1922 kg/m<sup>3</sup>

**Bulk Density - To Place:** pcf kg/m<sup>3</sup>

**Minimum Time To Firing:** 0 hr

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

N/A cc

Chemistry (calcined) %					
Al <sub>2</sub> O <sub>3</sub>	47.2	Alk	2.3	MgO	
SiO <sub>2</sub>	48.4	TiO <sub>2</sub>	1.3	ZrO <sub>2</sub>	
CaO		P <sub>2</sub> O <sub>5</sub>		Other	
Fe <sub>2</sub> O <sub>3</sub>	0.6	SiC			

Water Range Per Standard Package		%	Quarts	Liters
Vib Casting	min			
	max			
Casting	min			
	max			
Pumping	min			
	max			

**Coefficient of Thermal Expansion (reversible):**

2.9 x 10<sup>-6</sup> in/in/°F / 5.2 x 10<sup>-6</sup> mm/mm/°C

Thermal Conductivity	btu*in/hr*ft <sup>2</sup> *°F	W/m°C
500°F / 260°C	6.0	0.86
1000°F / 540°C	6.2	0.89
1500°F / 815°C	6.4	0.92
2000°F / 1090°C	6.8	0.98

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	-1.2	2700	19.0	2500	17.2		
1500	820	-1.7			2750	19.0		

Other Data: Bonding Strength ASTM C-198, 230F/110C - 650psi, 4.5 MPa, 2910F/1600C -1250psi, 8.6 MPa

Release Date: 7 Feb 2020

Heat Up Guide:

ASTM Class: C 1655 Super Duty

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.