

Technical Data Sheet

Exo-Set Uno M G

Product # 17437

Available Internationally As: Exo-set Uno M G

Product Description:

Exo-Set UNO M G is a mullite based, chemical bonded gun mix that utilizes a dry phosphate bonding system which only requires water for activation. Exo-Set UNO M G should be gunned without pre-dampening. Product advantages include good adherence and re-bond strength on worn refractory surfaces, rapid setting, and resistance to aluminum attack and penetration.

Standard Packaging: 55 # / 25 kg Bag

Shelf Life: 6 months

Service Limit: $2500\,^{\circ}\text{F}$ $1370\,^{\circ}\text{C}$ Contact Limit: $N/A\,^{\circ}\text{F}$ $N/A\,^{\circ}\text{C}$

Bulk Density - In Service: 142 pcf 2275 kg/m³

Bulk Density - To Place: 142 DCf 2275 kg/m³

Minimum Time To Firing: 0 hr

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

Abrasion Loss after 1500°F / 815°C

per ASTM C704

12 cc

Chemistry (calcined) %					
Al_2O_3	58.7	Alk		MgO	
SiO ₂	26.2	TiO ₂		ZrO ₂	
CaO		P ₂ O ₅	4.8	Other	10.7
Fe ₂ O ₃		SiC			

Coefficient of Thermal Expansion (reversable):

3.6 $\times 10^{-6} \text{ in/in/}^{\circ}\text{F} / 6.5 \times 10^{-6} \text{ mm/mm/}^{\circ}\text{C}$

Thermal Conductivity	btu*in/hr*ft²*°F	W/m°C		
500°F / 260°C	8.0	1.2		
1000°F / <i>540</i> °C	8.2	1.2		
1500°F / <i>815</i> °C	9.0	1.3		
2000°F / 1090°C	10.3	1.5		

Temperature		Linear	CCS per ASTM C133		Cold MOR per ASTM C133		Hot MOR per ASTM C583	
°F	°C	Change% per ASTM C113	psi	MPa	psi	MPa	psi	MPa
230	110	0.0	3000	21.0	1100	7.6		
1000	540	-0.2			800	5.5	1100	7.6
1500	820	-0.3	2000	13.8	1000	6.9	1300	9.0
1800	980	-0.4			1300	9.0	900	6.2

Other Data:

Release Date: 1 Aug 2019

Heat Up Guide: Schedule D

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.