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ENGLISH

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FORMULA 16

Thermbond Refractories use the patented Stellar Binder System™ for easy and accurate mixing, controlled setting, fast dry-out and heat up, thermal shock resistance and other unique properties. Thermbond chemically bonds to existing fired refractories. CHARACTERISTICS: - High Purity - Medium Weight - Non-Wetting - Fast Setting - Fast Curing - Insulating

PACKAGING		
Unit Equivalent	Bags: 1	Jugs: 1
Bag Weight*	48 lbs	21.8 kg
Jug Weight*	8 lbs	3.6 kg
Drum Weight*	400 lbs	181.4 kg
Unit Weight*	56 lbs	25.2 kg
Yield / Unit*	0.44 ft3	0.013 m3
Units / Ton*	35.97 short	39.65 metric
Board Feet / Unit*	5.3 bd ft	
Wet to Dry Ratio*	15.8% - 17.4%	
Liquid Activator	FORMULA	
Bags Per Pallet	48	
Drums Per Dry Pallet	1	

APPLICATION	
Data based on	Casting

BULK DENSITY**		
As Placed	125 lbs/ft3	2002 kg/m3
After 1500F (816C)	112 lbs/ft3	1794 kg/m3

MAXIMUM RECOMMENDED SERVICE TEMP**		
Hot Face	2200 F	1204 C

MOLTEN METAL CONTACT	
- Aluminum - Zinc	

COMPRESSIVE STRENGTH**			
1500F (816C)	3000 psi	211 kg/cm2	21 N/mm2
2500F (1371C)	3500 psi	246 kg/cm2	24 N/mm2
2600F (1427C)	3500 psi	246 kg/cm2	24 N/mm2

PERMANENT LINEAR CHANGE**	
1500F (816C)	-0.30%
2500F (1371C)	-0.50%
2600F (1427C)	-0.70%

TYPICAL CHEMICAL ANALYSIS (After 1500F (816C))**	
Al2O3	7.32%
SiO2	82.68%
Fe2O3	0.16%
P2O5	6.21%
Other	3.62%
Total	100.00%

THERMAL CONDUCTIVITY**		
1000F (538C)	3.3 Btu-in/hr-ft2-F	0.48 W/m K
1500F (816C)	3.6 Btu-in/hr-ft2-F	0.52 W/m K
2000F (1093C)	4.0 Btu-in/hr-ft2-F	0.58 W/m K
2500F (1371C)	4.0 Btu-in/hr-ft2-F	0.58 W/m K

COLD MODULUS OF RUPTURE**			
1500F (816C)	750 psi	53 kg/cm2	5 N/mm2
2500F (1371C)	800 psi	56 kg/cm2	6 N/mm2
2600F (1427C)	850 psi	60 kg/cm2	6 N/mm2

HOT MODULUS OF RUPTURE**			
1500F (816C)	1500 psi	105 kg/cm2	10 N/mm2

*Measures are approximate and may vary. For mixing partial units, contact Stellar Materials for specific wet-to-dry ratios. See Installation Guide for more detailed information.

**Test data shown are based on averages subject to normal variation on individual tests, and therefore should not be assumed to be maximum or minimum specifications.

Due to the unique nature of the Stellar binder system, test procedures vary slightly from ASTM. Documentation of these variations is available upon request.