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ENGLISH

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THERMBRAKE 403

Formerly Thermbrake Three

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:** - Silica - Light Weight - Fast Setting - Fast Curing - Insulating -

PACKAGING		
Unit Equivalent	Bags: 1	Jugs: 2
Bag Weight*	20 lbs	9.1 kg
Jug Weight*	8 lbs	3.6 kg
Drum Weight*	500 lbs	226.8 kg
Unit Weight*	35 lbs	15.9 kg
Yield / Unit*	0.41 ft3	0.012 m3
Units / Ton*	57.14 short	62.99 metric
Board Feet / Unit*	4.9 bd ft	
Wet to Dry Ratio*	75% - 82.5%	
Liquid Activator	THERMBRAKE	
Bags Per Pallet	64	
Drums Per Dry Pallet	2	

COMPRESSIVE STRENGTH**			
1500F (816C)	600 psi	42 kg/cm2	4 N/mm2
2000F (1093C)	600 psi	42 kg/cm2	4 N/mm2
2500F (1371C)	175 psi	12 kg/cm2	1 N/mm2

PERMANENT LINEAR CHANGE**	
1500F (816C)	-0.70%

TYPICAL CHEMICAL ANALYSIS (After 1500F (816C))**	
Al2O3	13.69%
SiO2	51.84%
Fe2O3	1.28%
P2O5	22.60%
Other	10.59%
Total	100.00%

APPLICATION	
Data based on	

THERMAL CONDUCTIVITY**		
1000F (538C)	1.7 Btu-in/hr-ft2-F	0.25 W/m K
1300F (704C)	1.9 Btu-in/hr-ft2-F	0.28 W/m K
1600F (871C)	1.8 Btu-in/hr-ft2-F	0.26 W/m K
2100F (1149C)	2.2 Btu-in/hr-ft2-F	0.31 W/m K

BULK DENSITY**		
As Placed	85 lbs/ft3	1362 kg/m3
After 1500F (816C)	55 lbs/ft3	881 kg/m3

MAXIMUM RECOMMENDED SERVICE TEMP**		
Hot Face	1800 F	982 C

COLD MODULUS OF RUPTURE**			
1500F (816C)	140 psi	10 kg/cm2	1 N/mm2
2000F (1093C)	80 psi	6 kg/cm2	1 N/mm2
2500F (1371C)	30 psi	2 kg/cm2	0 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.