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ENGLISH

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# FORMULA 6-EK

*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: - Alumina - Silica - Mullite - Dense - Fast Setting - Fast Curing - Extra Working Time - Low Viscosity*

## P R E L I M I N A R Y   D A T A

### PACKAGING

Unit Equivalent	Bags: 1	Jugs: 1
Bag Weight*	58 lbs	26.5 kg
Jug Weight*	8 lbs	3.6 kg
Drum Weight*	400 lbs	181.4 kg
Unit Weight*	66 lbs	30.0 kg
Yield / Unit*	0.43 ft <sup>3</sup>	0.012 m <sup>3</sup>
Units / Ton*	30.27 short	33.37 metric
Board Feet / Unit*	5.1 bd ft	
Wet to Dry Ratio*	13% - 14.3%	
Liquid Activator	FORMULA	
Bags Per Pallet	48	
Drums Per Dry Pallet	1	

### APPLICATION

Data based on	Casting
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### BULK DENSITY\*\*

As Placed	155 lbs/ft <sup>3</sup>	2483 kg/m <sup>3</sup>
After 1500F (816C)	145 lbs/ft <sup>3</sup>	2323 kg/m <sup>3</sup>

### MAXIMUM RECOMMENDED SERVICE TEMP\*\*

Hot Face	3000 F	1649 C
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### COMPRESSIVE STRENGTH\*\*

1500F (816C)	3000 psi	211 kg/cm <sup>2</sup>	21 N/mm <sup>2</sup>
2000F (1093C)	6000 psi	422 kg/cm <sup>2</sup>	41 N/mm <sup>2</sup>
2500F (1371C)	7500 psi	527 kg/cm <sup>2</sup>	52 N/mm <sup>2</sup>

### PERMANENT LINEAR CHANGE\*\*

1500F (816C)	-0.30%
2000F (1093C)	-0.60%
2500F (1371C)	-1.00%

### TYPICAL CHEMICAL ANALYSIS (After 1500F (816C))\*\*

Al <sub>2</sub> O <sub>3</sub>	63.63%
SiO <sub>2</sub>	25.92%
Fe <sub>2</sub> O <sub>3</sub>	0.89%
P <sub>2</sub> O <sub>5</sub>	4.41%
Other	5.15%
Total	100.00%

### THERMAL CONDUCTIVITY\*\*

600F (316C)	10.3 Btu-in/hr-ft <sup>2</sup> -F	1.48 W/m K
1000F (538C)	10.0 Btu-in/hr-ft <sup>2</sup> -F	1.44 W/m K
1200F (649C)	9.9 Btu-in/hr-ft <sup>2</sup> -F	1.43 W/m K
1800F (982C)	10.0 Btu-in/hr-ft <sup>2</sup> -F	1.44 W/m K

### COLD MODULUS OF RUPTURE\*\*

1500F (816C)	900 psi	63 kg/cm <sup>2</sup>	6 N/mm <sup>2</sup>
2000F (1093C)	1500 psi	105 kg/cm <sup>2</sup>	10 N/mm <sup>2</sup>
2500F (1371C)	1950 psi	137 kg/cm <sup>2</sup>	13 N/mm <sup>2</sup>

### HOT MODULUS OF RUPTURE\*\*

1500F (816C)	2000 psi	141 kg/cm <sup>2</sup>	14 N/mm <sup>2</sup>
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\*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.