SUPER HYBOND® 70 PLUS

HarbisonWalker International

Product Data

06/09: 5557

Description: High-Strength, High-Alumina, Plastic Refractory		
Features:	• Air setting. • Higher strengths to withstand mechanical abuse than conventional heat-setting plastics. • Ideally suited for continuous use temperatures up to 2700°F; stable for short temperature excursions up to 3050°F.	
Uses:	• Burner blocks. • Reheat furnace wall and roof regions. • High-temperature combustion chambers. • High-temperature boilers.	
Chemical Analysis: Approximate (Calcined Basis)		
	Silica (SiO_2)	27.8%
	Alumina (Al_2O_3)	67.7%
	Iron Oxide (Fe_2O_3)	1.3%
	Titania (TiO_2)	2.5%
	Lime (CaO)	0.2%
	Magnesia (MgO)	0.2%
	Alkalies (Na_2O+K_2O)	0.3%
Physical Data (Typical)		Pressed
Material Required		166 lb/ft^3 (2.66 g/cm^3)
Modulus of Rupture		lb/in.^{2} (MPa)
	After 220°F (105°C)	300 (2.1)
	After 1500°F (815°C)	200 (1.4)
	After 2000°F (1095°C)	300 (2.1)
	After 2550°F (1400°C)	400 (2.8)
Permanent Linear Change		
	After 220°F (105°C)	-0.7%
	After 1500°F (815°C)	-0.6%
	After 2000°F (1095°C)	-0.8%
	After 2550°F (1400°C)	-0.2%
	After 2910°F (1600°C)	+5.0%
Thermal Conductivity		Btu·in/hr·ft^2·°F (W/m·°C)
	At 800°F (425°C)	5.0 (0.72)
	At 1200°F (650°C)	5.5 (0.79)
	At 1600°F (870°C)	6.3 (0.91)
	At 2000°F (1095°C)	7.4 (1.07)
Particle Size		
	Maximum Grain Size 3½ Mesh (Tyler) (5.6 mm opening)	Less than 5%

Note: The test data shown are based on average results on production samples and are subject to normal variation on individual tests. The test data cannot be taken as minimum or maximum values for specification purposes. ASTM test procedures used when applicable.

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Mixing and Using Information	
Material is supplied ready to use.	
Heatup/Dryout Schedule	
See HWI Dryout Schedule 6—PLUS Rated Plastics and Rams.	
Installation Guidelines	
See HWI Installation Guidelines P-1—Plastics.	
Shelf Life (Under Proper Storage Conditions)	120 days