## **GREENPATCH-421**



Product Data 01/09: 5605

## Description: 3200°F, Wet, Air-Setting, Thick Patching Mortar

Features:

- Can be used as patching material, a coating, and for bonding brick such as EMPIRE® S, CLIPPER DP®, KX-99®, KX-99®-BF, and KRUZITE®-70.
- Supplied as a thick patching mortar; can be field-adjusted with water as needed.
- Can be fired-in faster than regular high-alumina mortars.

Uses:

- Boilers, brick plants, steel mills, asphalt plants, and iron foundries.
- Protective coating over ceramic fiber modules.

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Chemical Analysis: Approximate (Calcined Basis)	
Silica (SiO <sub>2</sub> )	41.2%
Alumina (Al <sub>2</sub> O <sub>3</sub> )	53.4%
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	1.1%
Titania (TiO <sub>2</sub> )	2.0%
Lime (CaO)	0.1%
Magnesia (MgO)	0.1%
Alkalies (Na <sub>2</sub> O+K <sub>2</sub> O)	2.2%
Physical Data (Typical)	
Maximum Service Temperature	3200°F (1760°C)
Material Required per 1,000 9-inch Equivalent:	lb (kg)
Dipping Consistency	425 (193)
Material Required per Square Foot (305×305 mm)	lb (kg)
For ½ in. (13 mm) Thickness	6.25 (2.8)
Modulus of Rupture at Joints	Ib/in.² (MPa)
On KX-99® Brick with Ends Bonded Together Using	
Mortar in Troweling Consistency	
After 220°F (105°C)	850 (5.9)
After 1500°F (815°C)	600 (4.1)
Refractoriness Test	
3100°F (1704°C) Test Temperature	No softening or flowing
Particle Size	
Maximum Grain Size 20 Mesh (Tyler)	Less than 1.0%
Maximum Grain Size 35 Mesh (Tyler)	Less than 5.0%
Water Retention	Minimum of 2 minutes

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	Per 55 lb Pail	
Material is supplied ready to use and can be field-adjusted as required.		
Water Required—Thin Trowel		
Gallons	0.125	
Liters	0.45	
Water Required—Dipping		
Gallons	0.625	
Liters	2.3	
For detailed mixing and using instructions, contact your HWI representative or visit www.thinkHWI.com.		
Heatup/Dryout Schedule		
Not applicable		
Installation Guidelines		
See HWI Installation Guidelines M-1—Wet Mortars—Ready to Use.		
Shelf Life (Under Proper Storage Conditions)	180 days	