MONOKOTE® MK-6® /HY® extended set fireproofing

Product performance data and information

Product Description

MONOKOTE®MK-6®/HY®Extended Set™ fireproofing is a single component, mill-mixed fireproofing plaster (cementitious) which has a delayed set feature. Extended Set™ is the same as MK-6/HY, except this product can be left unattended in the delivery system for up to 4 days. The Extended Set™ product requires the addition of water to form a consistent, pumpable slurry. To achieve proper setting time, MONOKOTE®Accelerator must be injected into MONOKOTE®MK-6/HY Extended Set™ fireproofing during product application. In addition, a dye marker material should be added when Extended Set™ is introduced per mixing and application instructions. This product can be used on structural steel columns, beams, joists, trusses, floors and roof decking.

Features & Benefits

MONOKOTE®MK-6/HY Extended Set™ fireproofing offers the following features and benefits to fireproofing applicators:

FEATURE	BENEFIT
Delayed set time	Allows applicator to significantly reduce or eliminate time consuming pump-in/pump-out procedure Allows applicator to increase daily productivity rate (bags/day) up to 20% Allows applicator to reduce waste water disposal and material scrap Allows applicator to complete fireproofing jobs in less time
Same in-place performance and fire rating performance as MK-6/HY	Durable UL listed (MK-6/HY) Factory inspected to ensure product performance Compliance with UBC, NBC, SBC and IBC Building Codes
Superior technical service & support	Provides application training and support Provides timely troubleshooting and follow up service

Delivery & Storage

- All material to be used for fireproofing shall be delivered in original unopened packages bearing the name of the manufacturer, the brand and proper Underwriters Laboratories Inc. labels for fire hazard and fire-resistance classifications.
- The material shall be kept dry until ready for use. Packages of material shall be kept off of the ground, under cover and away from sweating walls and other damp surfaces. All bags that have been exposed to water before use shall be discarded. Stock of material is to be rotated and used before its expiration date.

Steel & Concrete Surfaces

- Prior to the application of Extended Set™, an inspection shall be made to determine that all steel surfaces are acceptable to receive fireproofing. The steel to be fireproofed shall be free of oil, grease, excess rolling compounds or lubricants, loose mill scale, excess rust, noncompatible primer, lock down agent or any other substance that will impair proper adhesion. Where necessary, the cleaning of steel surfaces to receive fireproofing shall be the responsibility of the general contractor.
- The project architect shall determine if the painted or primed structural steel to receive fireproofing has been tested in accordance with ASTM E119, to provide the required fireresistance rating.
- Many fire-resistance designs allow the use of painted metal floor or roof deck in place of galvanized decking. Painted decking must be UL listed in the specific fire-resistance designs and must carry the UL classification marking. Consult your local GCP sales representative for details.
- Prior to application of Extended Set™, a bonding agent approved by the fireproofing manufacturer shall be applied to all concrete substrates.
- Apply fireproofing to the underside of roof deck assemblies only after roofing application is complete and roof traffic has ceased.
- No fireproofing shall be applied prior to completion of concrete work on steel decking.

Performance Characteristics

PHYSICAL PROPERTIES	RECOMMENDED SPECIFICATION	TYPICAL VALUES	TEST METHOD
Dry density, minimum average	15 pcf (240 kg/m^3)	15 pcf (240 kg/m^3)	ASTM E605
Bond strength	200 psf (9.6 KPa)	339 psf (16.2 KPa)	ASTM E736
Compression, 10% deformation	1,200 psf (51 KPa)	1,483 psf (71.0 KPa)	ASTM E761
Air erosion	Max 0.000 g/ft^2 (0.00 g/m^2)	0.000 g/ft^2 (0.00 g/m^2)	ASTM E859
High velocity air erosion	No continued erosion after 4 hours	No continued erosion after 4 hours	ASTM E859
Corrosion	Does not contribute to corrosion	Does not contribute to corrosion	ASTM E937
Bond impact	No cracking, spalling or delamination	No cracking, spalling or delamination	ASTM E760
Deflection	No cracking, spalling or delamination	No cracking, spalling or delamination	ASTM E759
Resistance to mold growth	No growth after 28 days	No growth after 28 days	ASTM G21
Surface burning characteristics	Flame spread = 0 Smoke developed = 0	Flame spread = 0 Smoke developed = 0	ASTM E84
Combustibility	Less than 5 MJ/m^2 total, 20 kw/m^2 peak heat release	Less than 5 MJ/m^2 total, 20 kw/m^2 peak heat release	ASTM E1354
Impact penetration	Max 6 cm^3 abraded	3.9 cm^3	City of San Francisco
Abrasion resistance	Max 15 cm^3 abraded	8.3 cm^3	City of San Francisco

Temperature & Ventilation

- An air and substrate temperature of 40 °F (4.4 °C) minimum shall be maintained for 24 hours prior to application, during application and for a minimum of 24 hours after application of MONOKOTE® MK-6/HY Extended Set™ Fireproofing.
- Provisions shall be made for ventilation to properly dry the fireproofing after application. In enclosed areas lacking natural ventilation, air circulation and ventilation must be provided to achieve a minimum total air exchange rate of 4 times per hour until the material is substantially dry.

Field Tests

- The architect will select and the owner will pay for an independent testing laboratory to randomly sample and verify the thickness and density of the fireproofing in accordance with the provisions of ASTM E605, Standard Test Method for Thickness and Density of Sprayed Fire-Resistive Material Applied to Structural Members or Uniform Building Code Standard No. 7-6 Thickness and Density Determination for Spray Applied Fireproofing.
- The architect will select and the owner will pay for an independent testing laboratory to randomly sample and verify the bond strength of the fireproofing in accordance with the provisions of ASTM E736.
- Results of the above tests will be made available to all parties at the completion of pre-designated areas which shall have been determined at a pre-job conference.

Safety

- MONOKOTE® Extended Set™ is slippery when wet. The general contractor and applicator shall be responsible for posting appropriate cautionary "SLIPPERY WHEN WET" signs. Signs should be posted in all areas in contact with wet fireproofing material. Anti-slip surfaces should be used on all working surfaces.
- Safety Data Sheets (SDS) for MONOKOTE® Extended Set™ are available upon request by calling 866-333-3SBM (3726) or by visiting our web site at www.gcpat.com.

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