

# MONOKOTE® MK-1000/HB Extended Set Product Data Sheet

Product data and application instructions

## Product Description

MONOKOTE®MK-1000 HB Extended Set fireproofing is a single component, mill-mixed fireproofing plaster (cementitious) which has a delayed set feature. MK-1000 HB Extended Set is the same as MK-1000 HB, except this product can be left unattended in the delivery system for up to 4 days. The MK-1000 HB 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-1000 HB 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

FEATURE	BENEFIT
Delayed set time	<ul style="list-style-type: none"> <li>Allows applicator to significantly reduce or eliminate time consuming pump-in/pump-out procedure</li> <li>Allows applicator to increase daily productivity rate (bags/day) up to 20%</li> <li>Allows applicator to reduce waste water disposal and material scrap</li> <li>Allows applicator to complete fireproofing jobs in less time</li> </ul>
Same in-place performance and fire rating performance as MK-1000 HB	<ul style="list-style-type: none"> <li>Durable</li> <li>UL listed</li> <li>Factory inspected to ensure product performance</li> <li>Compliance with IBC Building Codes</li> </ul>

## 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 UL 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 MONOKOTE® MK-1000 HB Extended Set fire resistive plaster, an inspection shall be made to determine that all steel surfaces are acceptable to receive fireproofing. The steel shall be free of oil, grease, rolling compounds or lubricants, loose mill scale, excess rust, non compatible 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/primed structural steel to receive fireproofing has been tested in accordance with ASTM E119, to provide the required fire resistance 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 MONOKOTE® MK-1000 HB Extended Set fire resistive plaster, a bonding agent, approved by the fire proofing manufacturer, shall be applied to all concrete substrates to receive MK-1000 HB Extended Set.
- Fireproofing to the underside of roof deck assemblies shall be done 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.
- Other trades shall not install ducts, piping, equipment, or other suspended items until the fireproofing is completed and inspected.
- Other trades shall install clips, hangers, support sleeves, and other attachments that penetrate the fireproofing, prior to application of the fireproofing.

## Performance Characteristics

PHYSICAL PROPERTIES	RECOMMENDED SPECIFICATION	TYPICAL VALUES	TEST METHOD
Dry density, minimum average	18 pcf (288 kg/m <sup>3</sup> )	18 pcf (288 kg/m <sup>3</sup> )	ASTM E605
Bond strength	1,000 psf (47.9 KPa)	1,528 psf (73.1 KPa)	ASTM E736
Compression, 10% deformation	50 psi (344 KPa)	56 psf (385.0 KPa)	ASTM E761
Air erosion	Max 0.000 g/ft <sup>2</sup> (0.00 g/m <sup>2</sup> )	0.000 g/ft <sup>2</sup> (0.00 g/m <sup>2</sup> )	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 <sup>2</sup> total, 20 kw/m <sup>2</sup> peak heat release	Less than 5 MJ/m <sup>2</sup> total, 20 kw/m <sup>2</sup> peak heat release	ASTM E1354

\*Actual laboratory tested values meet or exceed GCP's recommended value. Test reports are available on request from your GCP's sales representative.

## Temperature & Ventilation

- The substrate temperature shall be a minimum of 40 °F (4.5 °C) for at least 1-hour prior to the application of the MONOKOTE®. Additionally, the air and substrate temperature during application and for a minimum of 24 hours after application shall be no less than 40 °F (4.5 °C).
- 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 fresh air exchange rate of 4 times per hour until the material is substantially dry.

## Field Tests

- The architect will select an independent testing laboratory (for which the owner will pay) to sample and verify the thickness and density of the fireproofing in accordance with the applicable building code.
- The architect will select an independent testing laboratory (for which the owner will pay) 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® 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® MK-1000 HB Extended Set fire resistive plaster are available on our web site or by calling 866-333-3SBM.

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