Interdisciplinary Science Building
Webster University
Cannon Design Project No. 004561.01

Project: Webster ISB

Substitution Request Number:

From: Paric

To: Cannon

Date:

Re:

Contract For:

Specification Title: 078100

Description: Fireproofing

Section: 2.2

Page: 078100-4

Article/Paragraph: b

Proposed Substitution: Alternate fireproofing to meet 15lb/SF spec

Trade Name: Grace

Model No.: Monokote MK-6

Manufacturer: Grace

Address: 62 Whittemore Avenue
Cambridge, Massachusetts 02140 USA

Phone: 617.876.1400

Manufacturer Web Page: https://gcpat.com/construction/en-us/fire-protection

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

Savings to Owner for accepting substitution: ($)

Proposed substitution changes Contract Time: ☒No ☐Yes [Add] [Deduct] days.

The Undersigned Bidding General Contractor/Construction Manager Certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified products.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

- The following supporting data is attached to this request and verifies the above statements:
  - ☐ Drawings
  - ☒ Product Data
  - ☐ Samples
  - ☐ Tests
  - ☐ Reports
  - ☐ Other (explain) _____

Submitted by: Mark White

Signed by: _____

Contractor: Phillips Co

Address: 1414 South State Street

Freeburg, IL 62243

Phone: 618-779-4802 Email: markwhite@phillipsplastering.com

Review and Action

- ☐ Substitution approved – Make submittals in accordance with the Specifications.
- ☐ Substitution approved as noted – Make submittals in accordance with the Specifications.
- ☒ Substitution rejected – Use specified materials.
- ☐ Substitution received too late – Use specified materials.

Comments: Per the attached selection chart from manufacturer, Monokote MK-6 cannot be used for building with height greater than 75'. WU-ISB building is more than 75' tall. Also, since IBC 2009 code applies to this project, height exception do not apply.

Signed by: Steve Gantner & Kelvin Patel Date: 05/18/2016

MONOKOTE® MK-6®, MK-6/HY® and MK-6s

Product data and application instructions

Product Description

Monokote® MK-6®/HY® and MK-6s are single component, spray applied, mill-mixed fire resistive plasters. MK-6/HY and MK-6s have approval for use on structural steel members and fluted decking to provide up to four hours of fire protection, and on flat plate cellular decking for up to three hours with Spatterkote® SK-3.

Note: Monokote MK-6/HY and MK-6s afford the same level of the fire protection at identical protection thicknesses. By simply specifying "Monokote MK-6," the fireproofing subcontractor can select the product that will provide the most efficient fire protection for the specific project conditions.

Features & Benefits

Monokote cementitious fireproofing offers many significant advantages to the architect, owner, applicator and building occupant. These include:

- Proven in-place performance
- Low in-place cost
- Fast, efficient application
- UL fire tested and factory inspected
- Building Code compliant (ICBO, SBCCI, BOCA, ICC)

Delivery & Storage

a. 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.

b. The material shall be kept dry until ready for use. Packages of material shall be kept off 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

a. Prior to the application of Monokote MK-6, 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, 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.

b. 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.

c. 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 Grace sales representative for details.

d. Prior to application of Monokote MK-6, a bonding agent, approved by the fireproofing manufacturer, shall be applied to all concrete substrates to receive MK-6.

e. Fireproofing to the underside of roof deck assemblies shall be done only after roofing application is complete and roof traffic has ceased.

f. 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)	1,440 psf (68.9 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

g. Other trades shall not install ducts, piping, equipment, or other suspended items until the fireproofing is completed and inspected.

h. Other trades shall install clips, hangers, support sleeves, and other attachments that penetrate the fireproofing, prior to application of the fireproofing.

Mixing

a. Monokote Fireproofing shall be mixed by machine in a conventional, plaster-type mixer or a continuous mixer specifically modified for cementitious fireproofing. The mixer shall be kept clean and free of all previously mixed material. The mixer speed in a conventional mixer shall be adjusted to the lowest speed which gives adequate blending of the material and a mixer density of 40–45 pcf (640–720 kg/m^3) of material.

b. Using a suitable metering device and a conventional mixer, all water shall be first added to the mixer as the blades turn. Mixing shall continue until the mix is lump-free, with a creamy texture. All material is to be thoroughly wet. Target density of 43 ± 1 pcf (688 ± 16 kg/m^3) is most desirable. Overmixing Monokote will reduce pumping rate.

Application

a. Application of Monokote Fireproofing can be made in the following sequence:
   1. For thicknesses of approximately ½ in. (13 mm) or less, apply in one pass.
   2. For thicknesses of ⅝ in. (16 mm) or greater, apply subsequent passes after the first coat has set.

b. Spatterkote SK-3 shall be applied to all cellular steel floor units with flat plate on the bottom and to roof decking where required prior to application of Monokote. Spatterkote shall be applied in accordance with manufacturer's application instructions.

c. Monokote Fireproofing material shall not be used if it contains partially set, frozen or caked material.

d. The minimum average density shall be that required by the manufacturer, listed in the UL Fire Resistance Directory for each rating indicated, ICBO Evaluation Report, as required by the authority having jurisdiction, or minimum average 15 lbs/ft^3 (240 kg/m^3), whichever is greater.

e. Monokote shall be mixed with water at the job site.

f. Monokote Accelerator is to be used with Monokote Fireproofing* to enhance set characteristics and product yield. The Monokote Accelerator is injected into the Monokote Fireproofing at the spray gun. Monokote Accelerator shall be mixed and used according to manufacturers recommendations.

g. Monokote is applied directly to the steel, at various rates of application which will be job dependent, using standard plastering type equipment or continuous mixer/pump units. A spray gun, with a properly sized orifice and spray shield and air pressure at the nozzle of approximately 20 psi (38 KPa), will provide the correct hangability, density and appearance. NOTE: If freshly sprayed Monokote does not adhere properly, it is probably due to a too wet mix, poor thickness control, or an improperly cleaned substrate.

Temperature & Ventilation

a. 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.

b. 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

a. 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 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*.

b. 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.

c. 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

a. 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.

b. Material Safety Data Sheets for Monokote MK-6/HY and MK-6s are available on our web site at www.graceconstruction.com or by calling 866-333-3SBM.

* Use of accelerator with MK-6s will provide rapid set but will not result in yield increase.

www.graceconstruction.com

For technical assistance call toll free at 866-333-3SBM (3726)

MK-515F Printed in U.S.A. 12/07 FA/LI/1M

GRACE

GRACE
Construction Products

1. Product Name

Monokote® MK-6®/HY® and MK-6®s Structural Steel Fireproofing

2. Manufacturer

Grace Construction Products
62 Whittemore Avenue
Cambridge, MA 02140
(866) 333-3SBM (3726)
(617) 876-1400
Fax: (617) 498-4311
www.graceconstruction.com

3. Product Description

BASIC USE

Monokote® MK-6®/HY® and MK-6®s are single component, spray applied, mill-mixed fireproofing plasters. MK-6/HY and MK-6s are used on structural steel columns, beams, concrete and fluted decking to provide up to 4 hours of fire protection. With the application of Spatterkote® SK-3, ratings of up to 3 hours can be obtained on cellular flat-plate decking.

Monokote MK-6/HY and MK-6s afford the same level of fire protection at identical protection thicknesses. Specifying Monokote MK-6 allows the subcontractor to select the product that provides the most efficient fire protection for the specific project conditions.

COMPOSITION & MATERIALS

Monokote MK-6/HY and MK-6s are cementitious factory-mixed products. Only the addition of water is required on the jobsite to form a cohesive, pumpable slurry.

LIMITATIONS

Monokote MK-6/HY and MK-6s should not be used in areas directly exposed to weather. Monokote Z-106 and Z-146 are recommended for exposed applications, high traffic areas subject to excessive physical abuse, and industrial spray applied fireproofing applications. With proper substrate preparation, Monokote Z-146 is approved for exterior use.

4. Technical Data

APPLICABLE STANDARDS

ASTM International

- ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM E736 Standard Test Method for Cohesion/Adhesion of Sprayed Fire-Resistive Materials Applied to Structural Members
- ASTM E759 Standard Test Method for Effect of Deflection on Sprayed Fire-Resistive Material Applied to Structural Members
- ASTM E760 Standard Test Method for Effect of Impact on Bonding of Sprayed Fire-Resistive Materials Applied to Structural Members
- ASTM E761 Standard Test Method for Compressive Strength of Sprayed Fire-Resistive Material Applied to Structural Members
- ASTM E859 Standard Test Method for Air Erosion of Sprayed Fire-Resistive Materials (SFRMs) Applied to Structural Members
- ASTM E937 Standard Test Method for Corrosion of Steel by Sprayed Fire-Resistive Material (SFRMs) Applied to Structural Members
- ASTM G21 Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi

Tests developed by the City of San Francisco, Bureau of Building Inspection (SF)

- Abrasion Resistance Test Method
- Impact Penetration Test Method

U.S. Department of Veterans Affairs (VA) - VA H08-1

U.S. Environmental Protection Agency (EPA) - EPA Regulation 40 CFR, Part 61, Sub-part M, Section 61:148

APPROVALS

- International Building Code (IBC)
- Building Officials and Code Administrators International Inc. (BOCA)
- International Conference of Building Officials (ICBO)
- Uniform Building Code (UBC)
- Southern Building Code Congress International, Inc. (SBCCI)

PHYSICAL/CHEMICAL PROPERTIES

Monokote MK-6s and MK-6/HY Structural Steel Fireproofing exhibit the properties indicated in Table 1.

FIRE RATING

Underwriters Laboratories, Inc. (UL), fire ratings are provided in Table 2.

5. Installation

PREPARATORY WORK

Steel must be free of oil, grease, loose mill scale, paint or any other substance that can impair proper adhesion. Where possible, all clips, hangers, supports, sleeves and other attachments should be in place prior to the application of the fireproofing.

TABLE 1 PHYSICAL PROPERTIES OF MONOKOTE MK-6

Property & test	Recommended specifications	Laboratory test values
Bond strength (average), ASTM E736	> 200 psf (10 kPa)	339 psf (16 kPa)
Compressive strength, ASTM E761	> 1200 psf (57 kPa)	1440 psf (69 kPa)
Air erosion, ASTM E859	0.09 g/ft² (0.0 g/m²)	0.00 g/ft² (0.0 g/m²)
Bond impact, ASTM E760	Does not crack, spall or delaminate	Pass
Deflection, ASTM E759	Does not crack, spall or delaminate	Pass
Surface burning, ASTM E84	Flamespread 0 Smoke developed 0	Flamespread 0 Smoke developed 0
Corrosion, ASTM E937	Does not promote corrosion	Does not promote corrosion
Fungi resistance, ASTM G21	No mold growth	Pass (no growth)
Impact penetration, City of San Francisco test	< 6 cm³	< 3.3 cm³
Abrasion resistance, City of San Francisco test	< 15 cm³	< 8.3 cm³

APPLICATION METHODS

Multiple passes may be required to build the material up to the thickness required to achieve the fire resistance rating.

Field inspection for thickness, density and bond strength by an independent agency is recommended and may be required by the local building code jurisdiction. Any areas with insufficient thickness or damage by subsequent trades must be patched to the appropriate thickness to maintain the indicated fire resistance rating.

6. Availability & Cost

AVAILABILITY

Sales representatives and manufacturing facilities are located throughout North America, Latin America, Europe and Asia.

COST

Contact a Grace sales representative for cost information.

7. Warranty

Contact a Grace representative for warranty details.

8. Maintenance

No maintenance is required. Contact a qualified Monokote contractor to patch areas of fireproofing material disturbed by later activity.

9. Technical Services

Grace sales representatives are trained to provide specification and jobsite assistance. Contact Grace for the nearest office.

10. Filing Systems

- Reed First Source
- AIA MASTERSPEC® Section 07811 - Sprayed Fire-Resistive Material
- General Services Administration (GSA) - AIA/SC/GSA Specification Section 07811
- NAVFACENGCOM Guide Specification NFGS-07810B Spray Applied Fireproofing
- Additional product information is available from the manufacturer.

TABLE 2 UL FIRE RESISTANCE DIRECTORY DESIGNS UTILIZING GRACE MONOKOTE [1]

	Restrained assembly rating (hr)						Unrestrained assembly rating (hr)				
Construction	1	1 1/2	2	3	4	UL Design No.	1	1 1/2	2	3	4
Protected floor/ceiling systems											
Electrified floor options	■	■	■	■	■	D739	■	■	■	■	■
Fluted deck only	■	■	■	■	■	D779	■	■	■	■	■
Unclassified painted deck	■	■	■			D744	■	■	■		
Form deck	■	■	■	■		D780	■	■	■	■	
Fluted deck, 3 1/4" (83 mm) lightweight concrete	■	■	■	■	■	D782	■	■	■	■	■
Unprotected floor/ceiling systems											
Fluted and cellular deck	■	■	■	■		D925 [5]	■	■	■	■	
Epicore deck/Versa-deck		■	■	■		D917					
Concrete systems											
Pan-joist/Poured-in-place			■			J701	■				
Slab/Poured-in-place	■	■	■	■	■	J709, J712	■	■	■	■	■
Precast tees			■	■	■	J704, J705			■	■	■
Precast - Hollow core			■	■	■	J919			■	■	■
Roof/ceiling systems											
IRMA roof	■	■	■			P714	■	■	■		
Polystyrene foam insulation	■	■	■	■		P732	■	■	■	■	
Polyisocyanurate foam insulation	■	■	■	■		P732	■	■	■	■	
Spray polyurethane foam insulation	■	■	■	■		P733	■	■	■	■	
Mineral and fiberboard roof insulation	■	■	■	■		P732	■	■	■	■	
Lightweight insulating concrete roof deck	■	■	■			P936 [5]	■	■	■		
Beams/joists [2]											
Beams only - Floor systems, protected	■	■	■	■	■	N706, N779	■	■	■	■	■
Beams only - Floor systems, unprotected	■	■	■	■	■	N708, N782	■	■	■	■	■
Joist only - Floor systems	■	■	■	■	■	N736	■	■	■	■	■
	■	■	■	■		N777	■	■	■	■	
Beam only - Roof systems, unprotected	■	■	■	■	■	S735	■	■	■	■	■
Beam only - Roof systems, protected	■	■	■	■	■	S734	■	■	■	■	■
Joist only - Roof systems, protected	■	■	■	■		S728	■	■	■	■	
Joist only - Roof systems, unprotected	■	■	■	■		S736	■	■	■	■	
Columns [3]											
W6 × 9 to W14 × 730 (SI: W150 × 13 to W360 × 1086) W shape steel column [4] formula	■	■	■	■	■	X772, Y715	■	■	■	■	■
Tube and pipe columns	■	■	■	■	■	X771, Y710	■	■	■	■	■
Concrete-filled columns	■	■	■	■	■	X791	■	■	■	■	■

[1] Refer to the UL design listing for concrete type, beam sizes, composite beam, deck profile, trench header and electrical inserts for covering type and other construction details.

[2] Ratings for N or S series designs refer to restrained or unrestrained beam ratings.

[3] Column ratings do not fall under restrained or unrestrained beam ratings.

[4] Column W/D must be between 0.33 and 6.62.

[5] Unrestrained ratings are subject to deck gauge and span limitations.

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gcp applied technologies

MONOKOTE® SPRAY-APPLIED FIREPROOFING

Product selection guide

For over 50 years, GCP Applied Technologies has developed a series of Monokote® technologies to meet the ever-changing needs of the spray-applied fire protection market.

The selection chart and brief descriptions below will help the architect/engineer or building owner make a preliminary selection of the Monokote fireproofing product with those characteristics most suited to the anticipated end use. Full product literature is available for each of these products from your local GCP Applied Technologies sales office or on the web at www.gcpat.com.

Commercial Buildings*							
Product	**Density**	**<75Ft**	**>75Ft & <420 Ft**	**>420 Ft**	**Parking Garages**	**Swimming Pool Areas**	**Exterior Exposure**
Monokote® MK-6/HY, MK-6s, MK-6 GF[(a)]	15	•					
Monokote MK-10/HB	15	•	•				
Monokote MK-1000/HB	18	•	•	•			
Monokote Z-106/G	22	•	•				
Monokote Z-106/HY	22	•	•	•	•	•	
Monokote Z-146, Z-146T	40	•	•	•	•	•	•
Monokote Z-156, Z-156T	50	•	•	•	•	•	•
Other Specialty Products							
Retro-Guard® - a 15 pcf product that is used for respray applications							
Monokote Z-3306 Thermal Barrier (cement-based) - a 22 pcf product used to spray over foam plastics							
Monokote Z-3306/G Thermal Barrier (gypsum-based) - a 15 pcf product used to spray over foam plastics							

* Includes offices, stores, schools, hospitals, etc.

(a) Monokote MK-6/HY, MK-6s, MK-6 GF can be used on buildings greater than 75Ft in height in markets that have not adopted the 2009 International Building Code (IBC) or later version of the IBC.

Standard Density Products -

For Interior Locations, Concealed Conditions

Monokote® MK-6® Fireproofing

Monokote MK-6 fireproofing has the highest combination of performance and value for fireproofing steel and concrete structures.

MK-6/HY® and MK-6s, MK-6 GF fireproofing products bond tightly to steel and concrete substrates, forming a uniform, durable material which does not spall, dust or flake. MK-6 fireproofing, being gypsum-based, is not designed for continuous long term exposure to weather or water. If regular exposure to moisture, or repeated physical contact is likely, specify Monokote® Z-106/HY Fireproofing to provide increased durability.

Retro-Guard® Replacement Fireproofing

Retro-Guard replacement fireproofing has been specifically developed for use in the abatement market.

Retro-Guard replacement fireproofing has the time-tested, in-place superiority of cementitious fireproofing. With superior bond and a hard, dust free surface, Retro-Guard replacement fireproofing provides the benefits and in-place performance expected of GCP Applied Technologies' Fireproofing Products.

Intermediate Durability -

Interior Locations, Exposed to View Only or for Buildings Between 75 and 420 Feet Tall

Monokote® MK-10/HB Fireproofing

Monokote MK-10/HB fireproofing provides a cost effective, high yield option for meeting the IBC bond strength requirements.

MK-10/HB fireproofing is a gypsum- based, cementitious fireproofing product designed to achieve higher bond strengths than traditional standard density products and is an excellent option for meeting the IBC building requirements for bond strength in excess of 430 psf for buildings in excess of 75' tall but less than 420 feet tall. Combining its ability to meet the IBC bond strength requirements with its high yield capabilities makes Monokote MK-10 HB fireproofing a cost effective option. It is also suitable for interior conditions that are exposed to view only where greater durability and bond strength are desired, such as exposed roof assemblies.

Monokote® Z-106/G Fireproofing

Z-106/G fireproofing can be used for interior, exposed applications where light abrasion, and damage resistance are desired

Z-106/G fireproofing is a is a low cost, medium density, gypsum-based cementitious fireproofing product for interior, dry environments subject to intermittent traffic and moderate physical exposure. Higher gypsum binder content improves damage resistance and helps maintain the fire resistance for the design life of the building. Typical applications include elevator shafts, high bay light manufacturing areas and high bay mechanical rooms.

Super High Rise Durability -
For Buildings Greater than 420 Feet Tall
Interior Locations

Monokote® MK-1000/HB Fireproofing

Monokote MK-1000/HB fireproofing provides a cost effective, high yield option for meeting the IBC bond strength requirements for Super High Rise Buildings

Monokote MK-1000/HB fireproofing is a gypsum- based, cementitious fireproofing product designed to achieve bond strengths in excess 1,000 psf, which exceeds the IBC requirements for bond strength for buildings in excess 420 feet tall. Combining its ability to meet the IBC bond strength requirements with its high yield capabilities makes Monokote MK-1000/HB fireproofing a cost effective option.

Medium Durability -
Interior Locations, Exposed Conditions to
Abrasion/Moisture or Buildings Greater than 420 Feet Tall

Monokote® Z-106/HY Fireproofing

Z-106/HY fireproofing is extremely hard, moisture-resistant and suitable for high traffic areas which require resistance to repeated physical contact and/or high humidity.

Z-106/HY fireproofing is a Portland cement- based cementitious fireproofing product designed with increased durability to meet specific commercial and industrial fire protection requirements on structural steel members, floor/ceiling and roof/ceiling assemblies. Typical applications for this medium density (22 pcf) product include equipment rooms, parking garages, and swimming pool areas.

High Durability -
Interior or Exterior Locations, Exposed Conditions
Subject to Impact or Continual Moisture

Monokote® Z-146 High Density Fireproofing

Z-146 fireproofing is designed to meet high durability standards for fire protection of interior and exterior applications.

Z-146 and Z-146T fireproofing are high density, Portland cement- based, cementitious fireproofing products. Typical applications include parking garages, industrial facilities, manufacturing facilities, and transportation terminals. Z-146T fireproofing contains an integral corrosion inhibitor as an increased measure of protection for applications such as roadway tunnels exposed to salt or other aggressive environmental conditions.

Monokote® Z-156 Ultra High Density Fireproofing

Z-156 fireproofing is designed to meet the highest durability standards for fire protection of interior and exterior applications.

Z-156 and Z-156T fireproofing are ultra high density, Portland cement- based, cementitious fireproofing products used where superior durability is required. Typical applications include parking garages, industrial facilities, manufacturing facilities, and transportation terminals. Z-156T fireproofing contains an integral corrosion inhibitor as an increased measure of protection for applications such as roadway tunnels exposed to salt or other aggressive environmental conditions.

Specialty Products

Monokote® Z-3306 Thermal Barrier

Z-3306 Thermal Barrier is a cementitious, fire-protective coating formulated for application over rigid, urethane and polystyrene foam plastics.

Spray- applied to interior foam surfaces on walls and ceilings, Z-3306 fireproofing forms a hard, durable, monolithic thermal barrier against heat and fire. Typical applications include:

- Breweries, freezers and coolers
- Pig and dairy barns
- Indoor tennis courts and swimming pools
- Seed storage and processing
- Ice arenas and recreation centers
- Water treatment plants
- Controlled atmosphere apple, potato and vegetable storage

Monokote® Z-3306/G Thermal Barrier

Z-3306/G Thermal Barrier is a gypsum-based spray applied thermal barrier specifically formulated for application over sprayed polyurethane foam plastics (SPF) with nominal density of 0.5 pounds per cubic foot (pcf).

When applied, Z-3306/G fireproofing forms a well adhered, monolithic thermal barrier protecting the sprayed polyurethane foam plastics from the effects of heat and fire. This product is designed for interior use only. Z-3306/G thermal barrier should not be used for exterior applications or exposure to continuous unconditioned high humidity environments or where free water may condense.

Service Centers

To locate your local GCP Fireproofing representative, or to obtain additional product information, contact your local service center by dialing 866-333-3SBM (3726). This information is also located on the web at www.gcpat.com.

Worldwide Headquarters

GCP Applied Technologies
62 Whittemore Ave.
Cambridge, MA 02140
USA
Tel.: (866) 333-3SBM (3726)
Fax: (800) 778-2885

Hong Kong

GCP Applied Technologies
Grace Industrial Building
6 On Chuen Street
On Lok Tsuen, Fanling
Tel.: 852-2-675-7898
Fax: 852-2-675-9193

United Kingdom

GCP Applied Technologies
580 Ipswich Road, Slough
Berkshire, SL1 4EQ
Tel.: 44-(0)-1753-692-929
Fax: 44-(0)-1753-637-616

www.gcpat.com

For technical assistance call toll free at 866-333-3SBM (3726)

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