

# **FIRE Retardants Inc.™** *The Decision You Make May Save A Life!*

123 Columbia Court North • Suite 201 • Chaska, MN 55318

**952-448-7377 • Fax: 952-448-2613**

**Fire Retardant "HOT LINE" 1-800-913-9385**

*E-mail: [info@fireretardantsinc.com](mailto:info@fireretardantsinc.com)*

**Visit Our Web Site at [www.fireretardantsinc.com](http://www.fireretardantsinc.com)**

## **BURN BARRIER NO. 50-69C and CX** **Cementitious Thermal Claddings for Structural Steel Fire Protection**

### **DESCRIPTION:**

BURN BARRIER No. 50-69C and No. 50-69CX Cementitious Thermal Claddings contain no asbestos. They are formulated essentially out of fire inert inorganic materials; therefore, coated surfaces will not support combustion and are fire safe. No. 50-69C and No. 50-69CX offer an inexpensive way of affording permanent, lightweight, fire protection to interior and exterior structural steel. They are supplied as dry materials that are mixed with water prior to application. These mixtures form a heavy, slurry, that can be spray or trowel applied. They do not employ the use of any flammable solvents; therefore, no fire hazard exists during application and curing. The cured materials are noncombustible and they impart a high degree of thermal insulation.

No. 50-69C and No. 50-69CX exhibit excellent bond strength to primed and unprimed steel. No. 50-69C is designed primarily for interior application, while No. 50-69CX is used for exterior application.

### **RECOMMENDED USES:**

Fire protection of structural steel and wooden support members, in facilities where it is necessary or desirable to increase the structural support members fire resistant properties.

### **PERFORMANCE INFORMATION:**

- ASTM E-119 (UL-263, ULC-S101, NFPA-251):  
Structural Steel W10 X 49, four (4) hours  
Structural Steel W14 X 228, four (4) hours
- Peoples Republic of China, Standard GN15-82:
- Structural Steel L = 6300 X H = 400 X W = 200 mm, thickness 10 mm, Weighing 71 kg/mcter, \* 6.7 hours

\*80 percent of actual time to failure. Time to failure 8.4 hours.

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### **CHARACTERISTICS:**

**Finish** . . . Flat, textured (stucco-like finish)

**Color** . . . . . Off-White to a gray

**Coverage** . . . . .

Steel Size	Applied Thickness
W10 X 49	2.25 inches (57 mm)
W14 X 228	1.5 inches (38 mm)
400 X 200 X 10 mm X 71 kg/m	1.97 inches (50 mm)

**Mixed Volume Solids** . . . . . 22.5-27.5

**Weight Solids** . . . . . 47.6-54.4

**Drying Time @ 77°F & 50% RH:**

To touch . . . . . 30-45 min

\* Continues to cure to a very hard surface. The time to obtain full cure depends upon the temperature and humidity prevailing. Normally, areas can be utilized 24 hours after application.

**Flash Point** . . . . . None

**Shelf Life** . . . . . 12 months (unopened)

**Packaging** . . . . . 50 lbs. bags

**Application** . . . . . Spray or trowel

### **SURFACE PREPARATION:**

Remove rust, oil, grease, and other foreign matter. No primer required.

### **APPLICATION**

#### **MIXING INSTRUCTIONS:**

(\* Use plaster/fireproofing mixer. For spray, add a maximum of 55 lbs. of water/50 lb. bag. For trowling, use only about 42 lbs. of water. However, the water content will need to be adjusted to suit the type of equipment used and method of application. Mix thoroughly until uniform in consistency.

Can be trowel applied or sprayed. For spray application, use only equipment designed for pumping and spraying (\*) wet plaster, concrete and hi-density fireproofing materials. Spray in layers of approximately 3/8 to 5/8 inch per layer, allow a few minutes set-up time between layers, (set-up time will vary depending on steel & air temperature and humidity). Continue to build up layers until the desired thickness is achieved.

**Maintenance:** Repairs can be made easily by hand, using a trowel.

(\* Such as: Mayco MG30, manufactured by Multiquip Inc., Carson, CA 90749  
Phone: 800-421-1244, Fax: 877-639-1461

### **PRECAUTIONS:**

Do not breathe dust. Inhalation of excessive dust may cause lung injury.

Avoid generating dust. Use respiratory protection in the absence of adequate engineering controls. Keep containers closed when not in use. Clear up spills promptly.

**Read MSDS before opening containers.**

**KEEP OUT OF REACH OF CHILDREN**

As we cannot anticipate all conditions under which this information and our products, or the products of other manufacturers in combination with our products, may be used, we accept no responsibility for results obtained by the application of this information or the safety or suitability of our products, either alone or in combination with other products. Users are advised to make their own tests to determine the safety and suitability of each such product or product combination for their own purposes. We sell the products without warranty or guarantee, and buyers and users assume all responsibility and liability for loss or damage from the handling and use of our products, whether used alone or in combination with other products.

Revised 11/07

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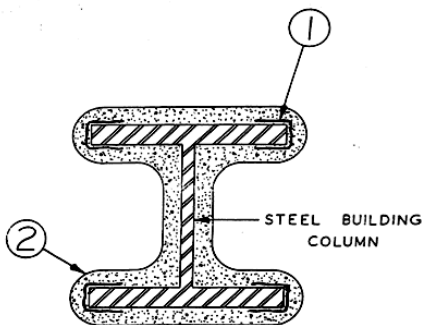
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## **BURN BARRIER NO. 50-69C and CX** Cementitious Thermal Claddings for Structural Steel Fire Protection

W14 X 228 Column

Rating of 4 HR



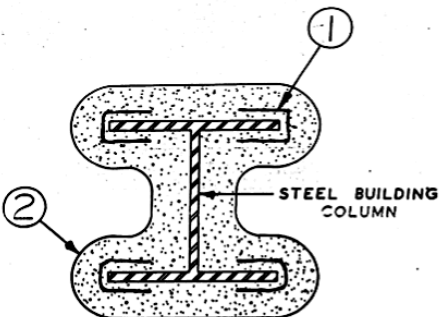
W14 X 228

1 – Wire Fabric

2 - #50-69 Cementitious Thermal Cladding

W10 X 14 Column

Rating of 3 HR



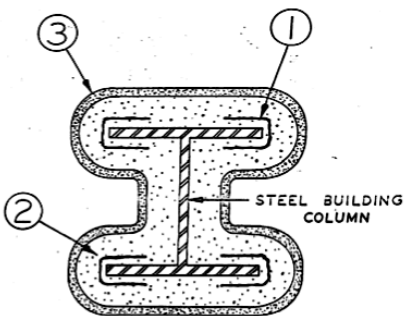
W14 X 228

1 – Wire Fabric

2 - #50-69 Cementitious Thermal Cladding

W10 X 14 Column

Rating of 4 HR



W10 X 49

1 – Wire Fabric

2 - #50-69 Cementitious Thermal Cladding – First Coat

3 - #50-69 Cementitious Thermal Cladding – Second Coat

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### Column W10X49 (72.9 kg/m)

	<u>kg/sq.meter</u>	<u>lbs./sq.ft.</u>
1 Hour	13.5 Kg	2.77
2 Hours	21.2 Kg	4.35
3 Hours	29.0 Kg	5.93
4 Hours	36.7 Kg	7.52

### Column W14X228 [339.3 kg/m]

	<u>kg/sq.meter</u>	<u>lbs./sq.ft.</u>
1 Hour	4.7 kg	0.97
2 Hours	10.7 kg	2.22
3 Hours	17.4 kg	3.56
4 Hours	23.2 kg	4.75

### NORMAL DRY FILM THICKNESS

#### Column W10X49

	<u>kg/sq.meter</u>	<u>lbs./sq.ft.</u>
1 Hour	22 mm	7/8"
2 Hours	35 mm	1 3/8"
3 Hours	48 mm	1 7/8"
4 Hours	60 mm	2 3/8"

#### Column W14X228

	<u>kg/sq.meter</u>	<u>lbs./sq.ft.</u>
1 Hour	8 mm	5/16"
2 Hours	18 mm	3/4"
3 Hours	29 mm	1 1/8"
4 Hours	38 mm	1 1/2"

pH No. 50-69C & No. 50-69CX >11.4

Thermal Conductivity K-1.26 [btu/sq.ft./inch/hr/ F]