



# Convoy Distribution Ltd. Convoy Engineering

FireRetardantCoatings.com

## SafeCoat TFI Structural Steel Protection

### PRODUCT DESCRIPTION

**SafeCoat TFI** is a single component latex, intumescent fire retardant coating ideally suited for exposed interior structural steel where 2-1/2 hour fire resistance rating is required. It is ideal for interior steel columns, tubes, trusses and other exposed structural members. It limits thermal penetration by expanding to many times the original dry film thickness when exposed to heat. This expanded material forms a char which insulates the substrate against heat, and reduces available oxygen to the surface. It provides a 2-1/2 hour fire rating as tested under **ASTM E-119-07A** "Floor/Ceiling", **NFPA 251** "Small Scale Test" and **CAN 4-S101**, "No Load".

### USES

- imparts a 2-1/2 hour fire rating to exposed steel structural members including columns, trusses and tubes.
- provides an aesthetic, thin, decorative finish to comply with architectural designs.
- can be applied as a mandatory upgrade to assist owners and property managers to meet the latest fire and building code requirements. It may also be applied as a voluntary upgrade to lower fire risks.
- ULC Listing is pending subject to standardization of the manufacturing process regarding viscosity and application after sufficient field testing.

### FEATURES

- is **non-toxic**. It contains no asbestos or halogens.
- is **fire-resistant**. It will not burn in liquid or solid state. Under fire conditions, it forms a char, preventing the spread of flames, and slowing the penetration of heat through the substrate (Fire Endurance).
- has excellent **adhesion** and **durability** when applied to metal. (Suitable primer required.)
- is **easy to use** but will need to be built up to proper thickness, typically over 4 applications.

### TECHNICAL DATA and PROPERTIES

<b>Coating Type</b>	Latex
<b>Finish</b>	White, flat finish
<b>Color</b>	<b>Standard:</b> White (Can be overcoated to achieve desired colour.)
<b>Specific Gravity</b>	11.77 lbs/US Gallon or 1.41g/mL
<b>Solids by Weight</b>	69%
<b>Solids by Volume</b>	57%
<b>VOC</b>	9.375 g/l 0.078 lbs/USG
<b>Dry Time</b>	<b>Touch:</b> 30 min. to 1 hour (varies with temperature and humidity) <b>Recoat:</b> 1 to 2 hours <b>Full cure:</b> 48 hours
<b>Film Thickness</b>	<b>2-1/2-Hour Rating</b> <b>Dry:</b> 60 mils
<b>Coverage</b>	16 ft. <sup>2</sup> /Gal.
<b>Flash Point</b>	No Flash
<b>Storage Limits</b>	Keep from freezing (above 50° F recommended)
<b>Shelf Life</b>	24 months
<b>Packaging</b>	Available in one, five and fifty-five US gallon quantities

## INSTRUCTIONS FOR USE

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### **Surface Preparation:**

All surface preparation should be carried out in accordance with good painting practices. Remove all loose, peeling or powdery paint from the surface. All dirt, grease, oil, wax and other foreign material must be removed with a suitable cleaner and allowed to thoroughly dry.

### **Application:**

**SafeCoat TFI Coating** can be best applied with an airless spray. Airless equipment is most desirable. Use Graco TexSpray Model Mark V or similar units. Use a 17-21 thousand aperture with a 12" fan. **SafeCoat TFI Coating** is a heavier body paint requiring reliable and consistent pumping equipment to achieve optimal results. Apply uniformly to entire surface. If thinning is required use clean water only and do not exceed 200 mL per gallon. Surface and ambient temperature must be maintained at greater than 50° F (10°C) during application and must remain so for at least 48 hours following the application. **SafeCoat TFI Coating** is intended for interior use only. If the coated substrate will be subject to repeated washing or prolonged contact with moisture a finish coat of **PRECIDIUM Aqua 90A** or suitable latex paint is recommended. More than one additional finishing coat may adversely affect the flame spread rating and smoke developed classification. Before applying any finishing coat consult the manufacturer or their representative. A wet film thickness gauge can be used at the start of the application to check that sufficient **SafeCoat TFI Coating** has been applied. At an application rate of 16 sq. ft. per gallon or wet film thickness should be 100 mils and will yield a dry film thickness of 60 mils.

### **Clean Up:**

All application tools can be easily cleaned with water. If product has dried on, use hot soapy water to soften and remove it.

### **Precautions:**

**SafeCoat TFI Coating** is not "WHMIS" regulated nor is it subject to the "Transportation of Dangerous Goods Act and Regulations". See MSDS for detailed precautions.

DO NOT FREEZE.

## TEST RESULTS

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### **FIRE RESISTANCE RATING**

Testing was conducted in accordance with **ASTM E-119-07A** "Floor/Ceiling, **NFPA 251**, "Small Scale Test" and **CAN4-S101** by Guardian Fire Testing Laboratories Inc. of Buffalo, NY. Following is a summary of the results of those tests.

Test System	Hour Rating	Material Thickness
Steel I-Beam W10x31	2-1/2	60 mils dry

## GUARANTEE/WARRANTY

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Recommendations for the use of our products are based on tests carried out at government approved labs. Manufacturer and seller are not responsible for results where the product is used under conditions beyond our control. Under no circumstances will Magna Coatings Technology Inc be liable for consequential damages to anyone in excess of the purchase price of the product or services.