# 3M™ FireDam™ Intumescent Coating WB 1000

## Product Data

### 1. Product Description

3M™ FireDam™ Intumescent Coating WB 1000 is a single component water-based thin film coating to fireproof interior structural steel.

Tested and Certified by UL and ULC, 3M™ FireDam™ Intumescent Coating WB 1000 provides fire resistance ratings up to 3 hours.
It is used in combination with a broad list of Primers and a vaste range of decorative colors for aesthetic signature.

3M™ FireDam™ Intumescent Coating WB 1000 for steel is a new 3M innovation offering one of the thinnest intumescent coatings for structural steel.

This new 3M innovation gives the opportunity to fireproof structural steel providing benefits such as a significant reduction in total system thickness, lighter weight per surface area protected, durability, aesthetic and good adhesion.

3M™ FireDam™ Intumescent Coating WB 1000 for steel when exposed to a fire, will char, foam, and expand in thickness, thereby providing an insulating layer and de-laying temperature rise in the steel.

**Product Features**

- Up to 3 hours as per ULC S101, UL 263 and ASTM E119
- Water-based
- Odorless
- Low VOC
- No Chlorinated Compounds
- No Persistent Chemicals
- Passed UL/ULC Environmental Test with no Top Coat for general interior applications
- Can be topcoated with either acrylic or silicone alkyd paint to match surroundings
- Easy application and clean up with water
- Fast drying time

### 2. Applications

3M™ FireDam™ Intumescent Coating WB 1000 for steel is an ideal fire proofing thin coating for use in atriums, airports, hotels, institutions, high rise buildings, etc.

3M™ FireDam™ Intumescent Coating WB 1000 for steel gives more latitude to the architects to use more exposed steel in projects with this new generation of intumescent coating offering a significant reduction in system thickness thus, completing projects in a timelier manner.

### 3. Specifications

3M™ FireDam™ Intumescent Coating WB 1000 is listed by independent test agencies such as ULC and UL and is tested to, and passes the criteria of, Standard “Fire Tests of Building Construction and Materials, “CAN/ULC-S101-07 Edition (ANSI/UL 263 – 13TH Edition, ASTM E119-2000 Edition).

**Typically Specified Division**
Division 7
Section 07812 – Intumescent Fire Resistive Material

**Related Sections**
Section 05100 – Structural Steel
Section 05120 – 05500 – Structural steel and metal fabrications with reference to primer receiving fire protection materials
Section 07811 – Spray-Applied Fire Resistive Material
Section 09900 – Painting

**Fire Test Designs**
3M™ FireDam™ Intumescent Coating WB 1000 was tested by ULC/UL on a large scope of columns, beams, floor assemblies and passed.
Refer to the ULC/UL Directory for the 3M™ FireDam™ Intumescent Coating WB 1000 designs or please contact 3M.

### 4. Physical Properties

| | |
|---|---|
| Color: | white |
| Density: | 1.4 grams / c. c. |
| Solid by Weight: | 70% +/- 2 |
| Coverage*: | 472 sq. m. /pail (5090 sq. ft. /pail) |
| Flash Point: | None |
| Surface Burning: | Flame Spread 10, smoke development 10 when tested to ULC S 102 |
| Hardness: | Shore D 58 |
| Abrasion Resistance (ASTM D4060): | 0.162 grams @ 1000 cycles |
| Impact Resistance: | 1.74 kg-m at 1.65 mm thickness (151 lb-in at 65 mil thickness) |
| VOC: | 55.37 g/L (0.26 lb/gal) |

*The coverage rate listed is calculated coverage based on 1 mil thick dry coating.
These are laboratory results and not intended for specification purposes.

## 5. Packaging, storage, shelf life

### Packaging
Volume: 18.9 liter (5 gal.)
Weight per pail: 61.3 Lbs (27.8 Kg)

### Storage
3M™ FireDam™ Intumescent Coating WB 1000 for steel must be stored indoor in dry conditions between 10ºC and 40ºC, protect from frost, excessive heat and strong radiant sunlight.

### Shelf Life
3M™ FireDam™ Intumescent Coating WB 1000 shelf life is 9 months in original unopened containers from date of packaging when stored above 10ºC (50ºF).

Lot numbering:
First digit = last digit of year
Second to fourth digit = 3 digit day of the year (from 001 to 365/366)
Fifth indicator = dash symbol (-)
Sixth to eighth = batch # (may only be 1 or 2 digits long)

## 6. Installation Techniques

3M™ FireDam™ Intumescent Coating WB 1000 for steel should be installed by trained and certified applicators in accordance with 3M's published installation manual.

### Preparatory Work:

3M™ FireDam™ Intumescent Coating WB 1000 for steel should be installed an with Airless spray pump such as Spraytech EP2355 or Graco 1595 / Ultra Max 795 or brush. All surfaces receiving the 3M™ FireDam™ Intumescent Coating WB 1000 for steel should be thoroughly cleaned of oil, grease, dirt, loose paint, loose mill scale and any other matter that will impair bond.

### Primers:

General instructions for installing the 3M™ FireDam™ Intumescent Coating WB 1000 for steel include confirmation of primer compatibility such as recommended Alkyd and Epoxy primers to receive 3M™ FireDam™ Intumescent Coating WB 1000. Note: **Primers containing zinc metal are generally not recommended.**

### Coating Application:

3M™ FireDam™ Intumescent Coating WB 1000 should be applied in sufficient wet film thicknesses to achieve the required fire resistive rating with as many passes as necessary, to attain required dry film thickness (DFT).

Refer to 3M's published installation manual for complete application guide.

### Topcoats:

A compatible topcoat with 3M™ FireDam™ Intumescent Coating WB 1000 is recommended for all installations, in order to give the desired colour. All topcoats should be applied in accordance with the topcoat manufacturer's recommendations.

Ensure the 3M™ FireDam™ Intumescent Coating WB 1000 is thoroughly dry before application of topcoat. For a complete guide covering installation techniques and materials and detailing independent systems contact your authorized 3M applicator.

### Precautions:

Follow approved working practices. Wear government approved respirators as needed or proper clothing, reading all warning labels, and follow instruction on the MSDS.

### Limitations:

Not intended for exterior applications.
Protect from freezing.

## 7. Maintenance

No maintenance is required when installed in accordance with the 3M installation manual. Once installed, if any section of the 3M™ FireDam™ Intumescent Coating WB 1000 is damaged, the following procedure will apply:

The damaged section should be repaired (touched up) by a 3M trained and certified applicator.

## 8. Availability

3M™ FireDam™ Intumescent Coating WB 1000 for steel is available through 3M's network of nationwide trained and certified applicators.

## 9. Safe Handling Information

Consult Material Safety Data Sheet prior to handling and disposing of 3M™ FireDam™ Intumescent Coating WB 1000.



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