

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 vast 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 delaying 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
- Lead

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:	1.41 grams/ c.c.
Solid by Volume:	66% +/-2
Coverage*:	492 sq.m./pail (5294 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:	3.8 g/L (0.03 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: 62.1 Lbs (28.2 Kg)

Storage

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

Shelf Life

3M™ FireDam™ Intumescent Coating WB 1000 shelf life is 6 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 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.

Warranty and Limited Remedy. This product will be free from defects in material and manufacture for a period of ninety (90) days from date of purchase. **3M MAKES NO OTHER WARRANTIES OR CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. If this 3M product is proved to be defective within the warranty period stated above, your exclusive remedy and 3M's sole obligation shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the product.

Limitation of Liability. Except where prohibited by law, 3M will not be liable for any loss or damage arising from the use of this 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

3M Fire Protection Products

3M Canada Inc.
London, Ontario, Canada
800 265 1840
www.3m.ca/ic

3M and FireDam are trademarks of 3M.
Used under licence in Canada.
© 2010, 3M All rights reserved. Printed in Canada
1009-03245E