

Selection & Specification Data

Generic Type A/D FIREFILM III is a water-based intumescent fire-resistive coating system. During a fire, it expands to form a meringue-like insulating ash. The topcoat component of the system provides a wide range of colors.

Description A/D FIREFILM III is a decorative, thin-film fire-resistive coating system for structural steel at interior locations in buildings. A topcoat is required for all applications – refer to Finish Coat.

- Features**
- UL, ULC, ITS and FM Listed – Designs for many steel sections, to provide up to a 3 hour fire rating.
 - Decorative Finish – Gives a smooth decorative finish. Topcoats are available in a wide range of colors.
 - Dust free surface.
 - Durable finish – Provides a hard, impact and abrasion resistant surface.
 - Topcoat finishes smooth to slight orange peel.
 - Thin film coating – space saving smaller column footprints.
 - Low VOC content.

Primers Apply A/D FIREFILM III only to clean and primed steel surfaces. Use only compatible primers as approved by Carboline. Refer to Approved Primers List. Follow primer manufacturer's instructions.

Finish Coat Topcoat is required for all installations. A/D FIREFILM III is qualified for UL's Interior General Purpose and Interior Conditioned Space categories. The approved topcoats are A/D COLORCOAT silicone alkyd paint, Carbocrylic 3350 and Sanitile 155 acrylic paint, applied to a minimum dry film thickness of 2 to 4 mils (0.05 to 0.1 mm). For Carbocrylic 3350 and Sanitile 155 use spray application only.

Caution: Typical of alkyd coatings, yellowing of white and light colours of A/D COLORCOAT® may occur. Where colour retention is critical, contact your Carboline representative for recommendations.

Application Refer to A/D FIREFILM III Application Guide for complete instructions.

Dry Film Thickness Refer to the A/D FIREFILM III fire test design information to determine the dry film thickness required for the size and shape of steel element to be protected and for the required fire resistance rating.

Limitations Not intended for exterior applications. Protect from freezing.

Physical Data

Theoretical coverage	5213 ft ² per pail @ 1mil DFT 484 m ² @ 1mil (0.025 mm) DFT
Application rate, max.	45 mil (1.14 mm) wet (0.74 mm (30 mil) dry) per coat, maximum
Density	11.9 lb/gal (1.42 g/cc)
Dry Weight	0.38 lb/ft ² (1.87 kg/m ²) at 42 mil (1.1 mm) dry
Durometer Hardness	Shore D: 65 - 70
pH	7.4
Solids by Volume	65 +/- 2 %
Solids by Weight	72%
Thickness range, per fire tests	16 – 322 mil (0.4 – 8.2 mm) dry
Impact Resistance, ASTM D2794	152 in-lbs @ 65 mil DFT
VOC	0.17 lbs./gallon (20 g/L)
Adhesion / Cohesion, ASTM D4541	18,000 psf (862 kPa) @ 65 mil DFT
Abrasion Resistance Index, ASTM D4060	103@1000 cycles @125mil DFT 104@2000 cycles @125 mil DFT
Surface Burning, ASTM E84	Flame Spread: 15 Smoke Developed: 25 (With A/D COLORCOAT topcoat)
Compressive Strength, ASTM E761	109,008 psf (5.2 MPa) @ 10% deformation
Packaging rate	5 gal (18.9L) per pail

Test reports and additional data available upon written request. These are laboratory results and not intended for specification purposes.

June 2009 replaces December 2007

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A/D FIREFILM® III

Approvals

A/D FIREFILM III is listed and certified by UL, ULC, ITS and FM.

Design Numbers

Wide Flange Columns -

UL: X639, X641, X642, X643, X645, X669, X670

ITS: AD/CA 180-01, -02, -03

ULC: Z608, Z610, Z612, Z626, Z627

FM: Column Protection Method 5, 6, 7

HSS Columns -

UL: X642, X645, X671, X672, X673

ITS: AD/CA 120-02, -04, 90-02

ULC: Z611, Z617, Z628, Z629, Z630

FM: Column Protection Method 5, 8, 9, 10

Beams / Floors -

UL: D941, D948

ITS: AD/FCA 120-01

ULC: F906, F910, F912

FM: Beam Protection Method 31

This product should be applied in accordance with the appropriate design.

City of New York

MEA Number 108-94-S-4 (beams)

MEA Number 242-92-S-7 (columns)

City of Los Angeles

Research Report Number 25440

Maintenance

No maintenance is required. If coating becomes damaged, rebuild required thickness by spray or brush. Refer to the A/D FIREFILM III Patch and Repair Guide. Small areas can be filled with trowel. A/D FIREFILM Putty is available for this purpose. When dry, smooth and finish with approved topcoat to match.

Packaging, Handling & Storage

Shipping Weight	62 lbs.
Storage (General)	Store in unopened containers out of direct sunlight.
Storage Temperature	Protect from freezing.
Shelf Life	6 months from date of manufacture*

*Shelf Life: (actual stated shelf life) when kept at recommended storage conditions and in original unopened containers.

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