

FIRE-RESISTANCE DESIGN

Assembly Usage Disclaimer

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States Design Criteria and Allowable Variances

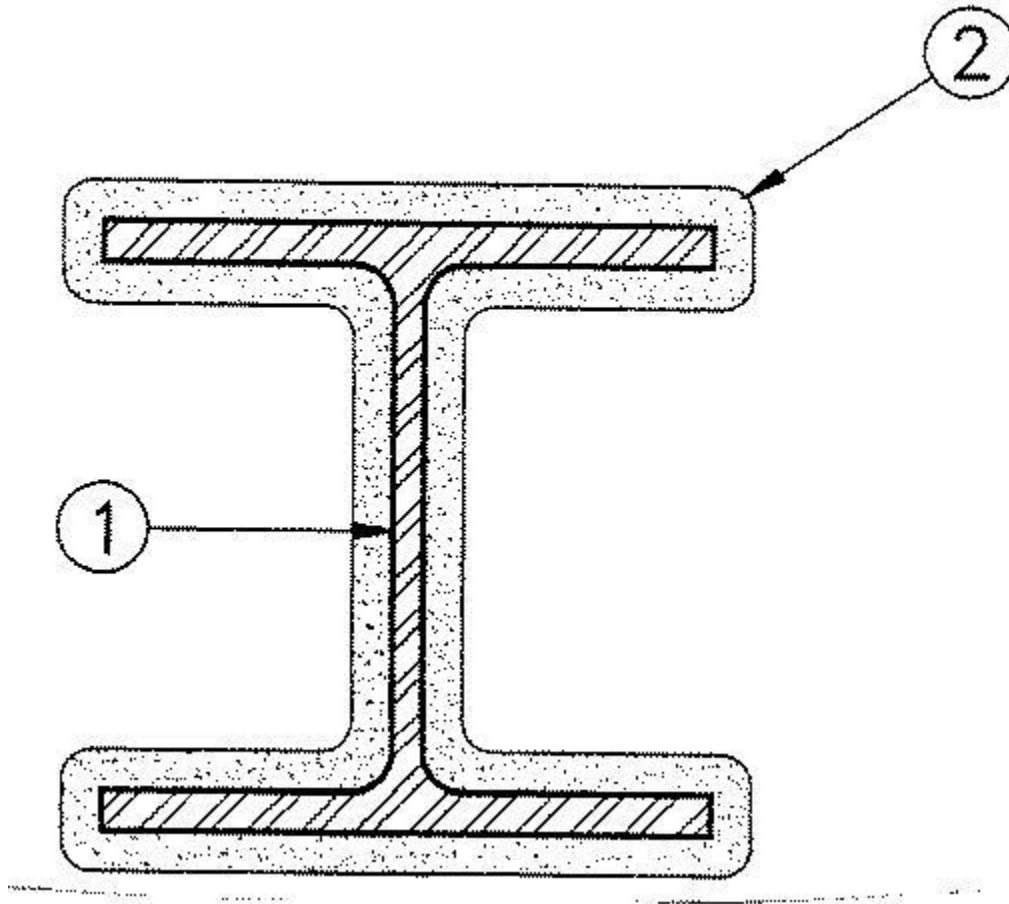
See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances

Design No. X641

October 29, 2010

Ratings - 3/4, 1, 1-1/2 and 2 Hr (See Item 2)

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**



1. **Steel Column** — Wide flange steel columns with the minimum sizes shown in the table below. Columns shall be free of dirt, loose scale and oil. Column shall be primed with metal alkyd primer.

2. **Mastic and Intumescent Coating*** — Coating applied in accordance with manufacturer's instructions to the minimum dry film thicknesses shown below:

Steel Column Size		Minimum Thickness, in.			
Size	W/D	3/4 hr	1 hr	1-1/2 hr	2 hr
W6x15	0.43	0.076	0.118	NR	NR
W8x31	0.66	0.076	0.091	NR	NR
W14x38	0.70	0.050	0.091	NR	NR
W10x49	0.84	0.042	0.055	NR	NR
W12x65	0.92	0.042	0.055	0.118	NR
W8x67	1.36	0.042	0.055	0.073	NR
W10x100	1.63	0.026	0.055	0.073	0.110
W12x120	1.64	0.026	0.03	0.073	0.110
W14x283	3.00	0.016	0.016	0.039	0.055

As an alternate to the above table, the required dry film thickness of coating (in inches) to be applied to all surfaces of wide flange steel columns, in the W/D range of 0.43 to 3.00 and for 3/4, 1, 1-1/2 and 2 hour rating periods, may be determined from the following equation:

$$t = \frac{0.0006725 \times (2.984T - 71.616)}{(W/D)}$$

Where t = minimum dry film thickness of coating in inches, T = Fire resistance period in minutes, for 45, 60, 90 and 120 minutes, W = Weight of steel column in pounds per linear foot, D = Heated perimeter of steel column section in inches.

Thicknesses generated from the equation shall fall between 0.016 in. and 0.118 in. If a calculated thickness falls outside of this range, a rating cannot be determined.

A/D FIRE PROTECTION SYSTEMS INC — Types "A/D FIREFILM II" or "A/D FIREFILM III" or "A/D FIREFILM III C" investigated for Interior Conditioned Space Purpose and Interior General Purpose.

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Last Updated on 2010-10-29

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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