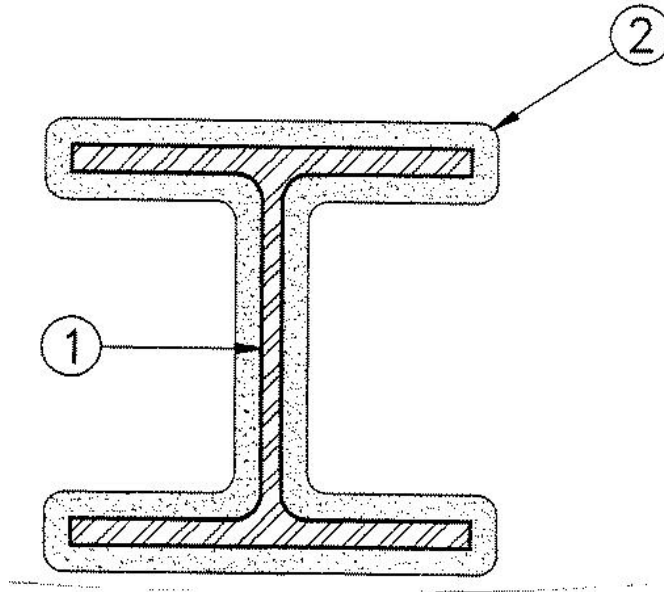


**UL Design No. X641**  
January 09, 2006

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



**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.

**2. Mastic 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" and "A/D FIREFILM III" investigated for Interior Conditioned Space Purpose and Interior General Purpose.

**3. Top Coat** — (Not shown) — Finishing topcoat, Type "A/D COLORCOAT", silicone alkyd paint applied at an approximate 0.002 in. dry film thickness.

\*Bearing the UL Classification Mark