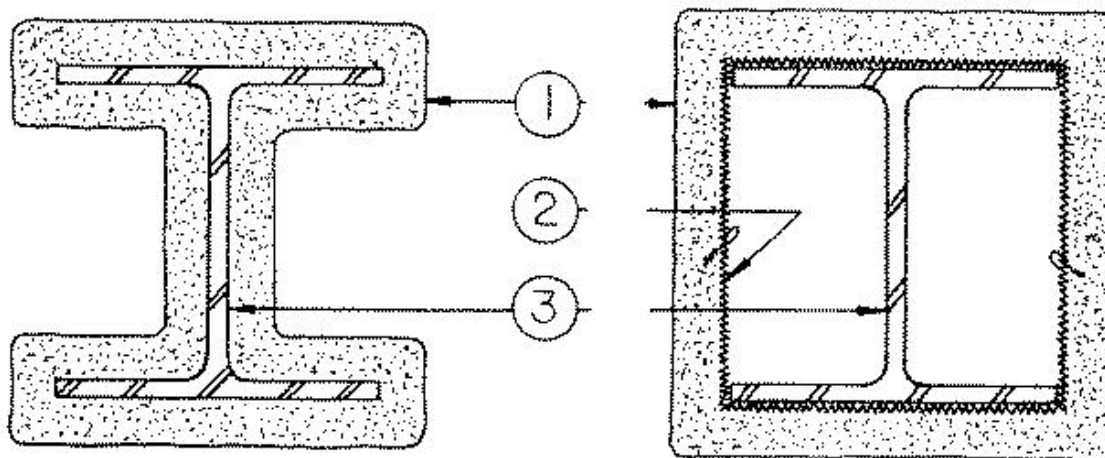


**UL Design No. Y725**

October 06, 2006

**Ratings - 1, 1-1/2, 2, 3 and 4 h.**



**1. Spray-Applied Fire Resistive Materials\*** — Applied by mixing with water and spraying in more than one coat to the thicknesses shown below, to steel surfaces which are clean and free of dirt, loose scale, and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 25/23 pcf respectively for Type Hi-5. Min avg and min ind density of 19/18 pcf respectively for Types 7GP and 7HD. For method of density determination, see Design Information Section, Sprayed Material.

The thickness of Spray-Applied Fire Resistive Materials to be applied to all surfaces of the column (Item 1) required for rating periods of 1 h, 1-1/2 h, 2 h, 3 h, and 4 h may be determined by the following equations:

For Hi 5:	$h = R/(0.9617(W/D) + 1.1939)$
For 4, 5, 5GP, 5EF, 5MD, 7GP, 7HD, 8GP, 8EF, 8MD, 9GP, 9EF, 9MD:	$h = R/(0.9994(W/D) + 0.9438)$

Where:

h = Spray-Applied Fire Resistive Materials thickness in the range 0.25 - 3.875 in.

R = Fire resistance rating in hours (1 - 4 h)

D = Heated perimeter of steel column in inches

W = Weight of steel column in lbs per foot

W/D = 0.33 to 6.62

As an alternate to the equation, the minimum thickness of Spray-Applied Fire Resistive Materials required for various fire resistance ratings of contour sprayed or boxed columns may be determined from the tables below:

Min Column Size	W/D	Min Thk In.				
		1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	0.33	13/16	1-3/16	1-9/16	2-3/8	3-8
W6x16	0.57	11/16	1	1-5/16	2	2-5/8
W8x28	0.67	5/8	15/16	1-1/4	1-7/8	2-1/2
W10x49	0.83	1/2	7/8	1-1/8	1-11/16	2-1/4
W14x228	2.49	1/4	7/16	9/16	7/8	1-3/16
W14x730	6.62	1/4	1/4	1/4	3/8	1/2

The thicknesses contained in the table below are applicable when the Spray-Applied Fire Resistive Materials applied to column's flange tips are reduced to one-half that shown in the table below:

Column Size	W/D	Min Thk In.				
		1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	0.33	7/8	1 1/4	1 5/8	2 7/16	3 3/16
W6x16	0.57	3/4	1 1/16	1 3/8	2 1/16	2 11/16
W8x28	0.67	11/16	1 1/16	1 3/8	2 1/16	2 5/8
W10x49	0.83	9/16	1 1/16	1 3/8	2 1/16	2 1/2
W14x233	2.49	1/4	7/16	11/16	1 3/16	1 9/16

**SOUTHWEST FIREPROOFING PRODUCTS CO** — Types 4, 5, 5GP, 5EF, 5MD, 7GP, 7HD, 8GP, 8EF, 8MD, 9GP, 9EF, 9MD.

Min Column Size	W/D	Min Thk In.				
		1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	0.33	11/16	1	1-5/16	2	2-5/8
W6x16	0.57	9/16	7/8	1-1/8	1-3/4	2-5/16
W8x28	0.67	9/16	13/16	1-1/16	1-5/8	2-3/16
W10x49	0.83	1/2	3/4	1	1-1/2	2
W14x233	2.49	1/4	7/16	9/16	13/16	1-1/8
W14x730	6.62	1/4	1/4	1/4	3/8	1/2

The thicknesses contained in the table below are applicable when the Spray-Applied Fire Resistive Materials applied to column's flange tips are reduced to one-half that shown in the table below:

Min Column Size	W/D	Min Thk In.				
		1 Hr	1-1/2 Hr	2 Hr	3 Hr	4 Hr
W6x9	0.33	3/4	1 1/16	1 3/8	2 1/16	2 11/16
W6x16	0.57	5/8	15/16	1 3/16	1 13/16	2 3/8
W8x28	0.67	5/8	15/16	1 3/16	1 13/16	2 5/16
W10x49	0.83	9/16	15/16	1 3/16	1 13/16	2 1/4
W14x233	2.49	1/4	7/16	11/16	1 1/8	1 1/2

**SOUTHWEST FIREPROOFING PRODUCTS CO — Hi-5**

2. **Metal Lath** — (Optional for contour application)—3.4 lb/sq yd galvanized or painted expanded steel lath. Lath shall be lapped 1 in. and tied together with No. 18 SWG galvanized steel; wire spaced vertically 6 in. O.C.

3. **Steel Column** — Wide flange steel column, min sizes as shown in the tables above.

\*Bearing the UL Classification Mark