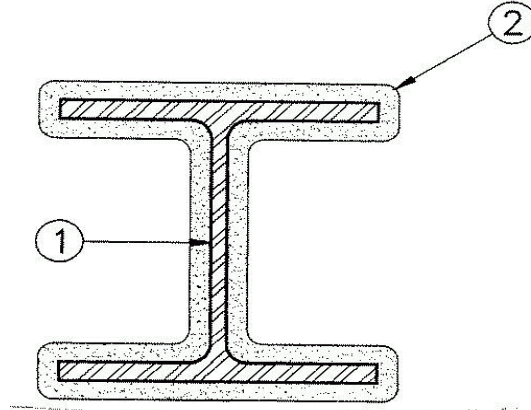


**ULC DESIGN No. Z610**

**Ratings - 3/4, 1, 1-1/2, 2 h (see Item 2)**



1. **Steel column - W Shaped** (see equation below).

2. **Thin-Film Intumescent Coatings** - (Guide No. 40 U18.12.9) Intumescent coating designated "A/D FIREFILM II" or "A/D FIREFILM III" applied in accordance with manufacturer's instructions to the minimum dry film thicknesses shown below:

<b>RATINGS, h</b>	<b>W-Shaped only Min Columns, M/D</b>	<b>Required Min Film Thickness, mm</b>
3/4	24.4	1.94
3/4	41.0	1.27
3/4	48.7	1.07
3/4	94.3	0.67
3/4	174.0	0.40
1	24.4	3.00
1	38.0	2.30
1	48.7	1.40
1	95.2	0.76
1	174.0	0.40
1-1/2	53.3	3.00
1-1/2	78.7	1.85
1-1/2	174.0	1.00
2	94.3	3.00
2	174.0	1.40

Alternatively, the required dry film thickness "t" may be determined by the following equation:

Z610 Continued...

**W- Shaped:**

$$45 \text{ min} \leq T \leq 120 \text{ max}$$

$$24.4 \text{ min} \leq M/D \leq 174 \text{ max}$$

$$0.4 \text{ mm} \leq t \leq 3.0 \text{ mm}$$

$$t = \frac{2.984T - 71.616}{M/D}$$

**t** = minimum dry film thickness, mm ( 0.4 mm min, 3.0 mm max )

**T** = rating period in minutes up to a maximum of 120 minutes (2h) (see equation above)

**M** = mass of column section, kg/m

**D** = heated perimeter of column section, m

**A/D FIRE PROTECTIONS SYSTEMS INC.**

3. **Finish Coating** - Silicone alkyd paint designated " A/D COLORCOAT "

April 28, 2003