ONLINE DIRECTORIES

BXUVC.Z805
Fire-resistance Ratings

Page Bottom

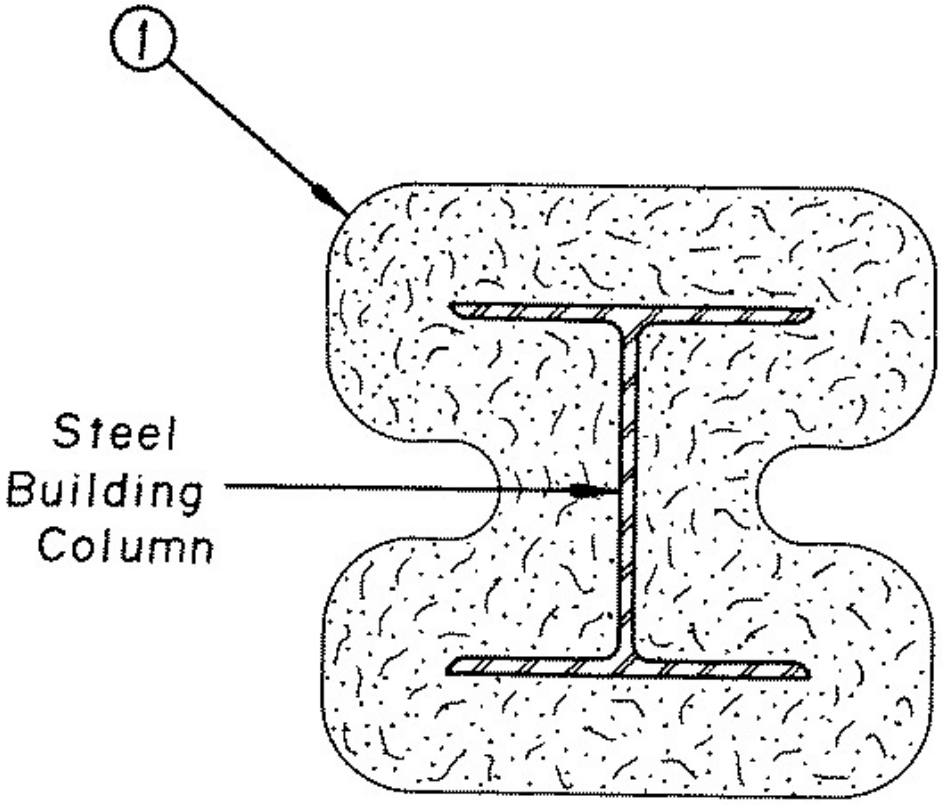
Fire-resistance Ratings

See General Information for Fire-resistance Ratings

Design No. Z805

March 23, 2004

Rating - See Table Below



Steel Building Column — W150x22, Minimum Size

- 1(a). **Spray-Applied Fire-Resistive Material —** (CHPXC). Applied to column surfaces to thickness as shown in Table. Minimum average dry density of 165 kg/m^3 with no individual value less than 148 kg/m^3. For method of density determination, refer to General Information Section under heading "Fire Resistance Ratings". Steel surfaces must be clean and free of dirt, loose scale and oily deposits.

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Rating, h	Min Required Thickness of Spray-Applied Fire-Resistive Material , mm
1	32
1-1/2	41
2	46

3	59
4	72

Alternatively, the required thickness may be determined by the equation:

or

$$T/PV = 0.215\ (M/D) + 7.25$$

$$t = \frac{Tx1000}{dx\{0.215(M/D)+7.25\}}$$

Where:

t = required thickness, mm (Equation applicable for calculated thickness not greater than 127 mm.)

T = rating period, minutes (240 minutes maximum)

PV = protection values, kg/m^2

M = mass of column section, kg/m with M/D > 24.4

d = density, kg/m^3 ($125\ kg/m^3 < d < 285\ kg/m^3$)

Thickness should not be reduced below the lesser of 13 mm or the thickness indicated in the particular design. Surfaces may be oversprayed with "TC-55 Sealer" per design requirements.

OR

1(b). **Spray-Applied Fire-Resistive Material —** (see table below) - (CHPXC). A/D "Type 5" spray-applied fire-resistive material for application to steel surfaces in thicknesses indicated in the following table. Mixture to have a minimum average dry density of $272\ kg/m^3$ with minimum individual density measurements no less than $248\ kg/m^3$. For method of density measurements, refer to General Information Section under heading "Fire Resistance Ratings". Steel surfaces must be clean and free of dirt, loose scale and oily deposits.

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Rating, h	Min Required Thickness, mm
1	32
1-1/2	41
2	46
3	59
4	72

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