ONLINE DIRECTORIES

BXUVC.Z806
Fire-resistance Ratings

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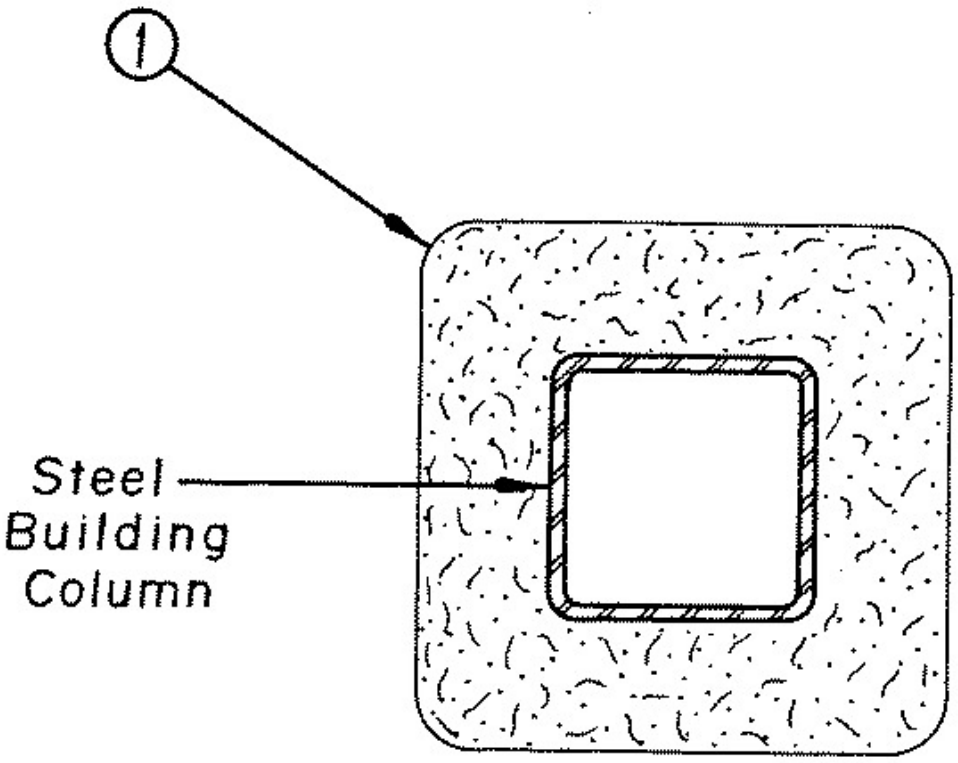
Fire-resistance Ratings

See General Information for Fire-resistance Ratings

Design No. Z806

March 23, 2004

Rating - See Table Below



Steel Building Column — Minimum size column HSS 101.6x101.6x4.78 mm, wall thickness x 14.1 kg/m.

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

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Rating, h	Min Required Thickness of Spray-Applied Fire-Resistive Material, mm
1	32
1-1/2	54
2	82

Alternatively, required thicknesses may be determined for $36.2 \leq M/D \leq 187.5$ by the following equations:

or

$$T/PV = 0.215\ (M/D) + 2.00$$

$$t = \frac{Tx1000}{dx\{0.215(M/D)+2.0\}}$$

Where:

t = required thickness, mm

T = rating period, minutes (240 minutes maximum)

PV = protection value, kg/m^2

M = mass of column section, kg/m with $36.2 \leq M/D \leq 187.5$

D = heated perimeter of column section, m

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

Thickness should not be reduced below the lesser of 13 mm or the thickness indicated in the particular design.

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	54
2	82

Last Updated on 2004-03-23