



Steel Building Column - W150x22, Minimum Size

- 1(a). **Spray-Applied Fire-Resistive Material** - (Guide No. 40 U18.6). 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

ULC Design Z805 continued...

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

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

or

$$t = \frac{T \times 1000}{d \{0.215(M/D) + 7.25\}}$$

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/m²

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

d = density, kg/m³ (125 kg/m³ < d < 285 kg/m³)

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) - (Guide No. 40 U18.6). 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/m³ with minimum individual density measurements no less than 248 kg/m³. 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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