

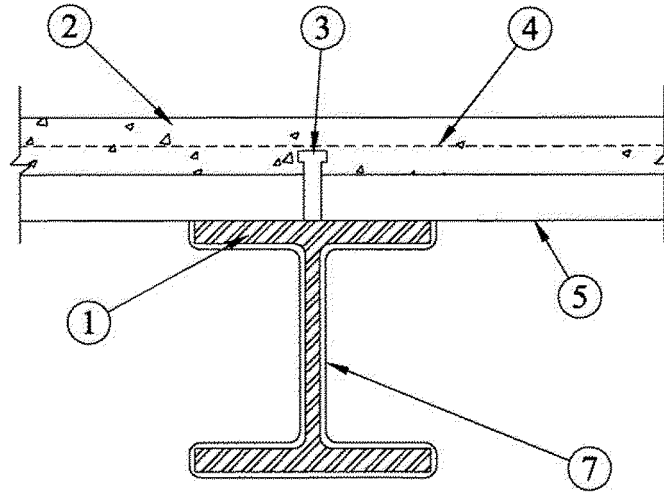
**Design No. N635**

Restrained Beam Ratings - 1, 1-1/2, and 2 Hr. (See Item 7)

Unrestrained Beam Ratings - 1, 1-1/2 and 2 Hr. (See Item 7)

Load Restricted for Canadian Applications — See Guide BXUV7

When used in Canada it is required that all materials included within the UL design are also cUL certified.



1. **Steel Beam** — W8x28 min size. Beams shall be free of dirt, loose scale and oil. Beams shall be primed with a phenolic modified alkyd resin primer, a metal alkyd primer, an acrylic primer or an epoxy primer at a nominal thickness of 1 mil.
2. **Normal Weight or Lightweight Concrete** — Compressive strength 3500 psi. For normal weight concrete either carbonate or siliceous aggregate may be used. Unit weight 146 lbs/cu ft. for normal weight concrete and 116 lbs/cu ft. for lightweight concrete. Min concrete thickness, as measured from top plane of steel floor and form units is 2-1/2 in.
3. **Shear Connector** — (Optional) Studs, 3/4 in. diam headed type or equivalent per AISC specifications welded to the top flange of beam through the steel floor units.
4. **Welded Wire Fabric** — 6x6-10/10 SWG
5. **Steel Floor or Form Units** — 1-1/2, 2 or 3 in. deep cellular, fluted, or corrugated units, welded to beam.
6. **Mineral Wool Insulation** — (not shown) - Min 6 pcf mineral wool insulation cut into pieces and firmly packed into, and completely filling the spaces between the flutes of the steel floor and form units and the top flange of the beam. Mineral wool is not required when the top flange of the beam is protected with intumescent coating at the same thickness shown in the table in Item 7.
7. **Mastic and Intumescent Coatings\*** — Coating spray or brush applied in accordance with the manufacturer's instructions at the min dry thickness as shown in the table below. The thickness shown below includes the primer thickness. When mineral wool (Item 6) is used, the top surface of the beam need not be protected with coating.

Beam Size	Unrestrained Beam		Minimum Dry Thickness	
	Rating, Hr.	mils	mm	
W8x28	1	47	1.19	
W8x28	1-1/2	96	2.44	
W8x28	2	154	4.11	

Beam Size	Restrained Beam		Minimum Dry Thickness	
	Rating, Hr.	mils	mm	
W8x28	1	47	1.19	
W8x28	1-1/2	70	1.77	
W8x28	2	113	2.86	

**ISOLATEK INTERNATIONAL** —Type SprayFilm-WB 3 and Type WB3, Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB4, Investigated for Interior General Purpose. Type SprayFilm-WB 4 and Type WB4, Investigated for Exterior Use with top coat as described in Item 8.

8. **Top Coat** — Type SprayFilm - TOPSEAL and Type TOPSEAL required for Exterior Use, applied at a minimum dry thickness of 14 mils (0.34 mm) over the intumescent material. See Classification information in the Mastic and Intumescent Coating (CDWZ) category, Isolatek International, for mixing requirements.

\*Bearing the UL Classification Mark