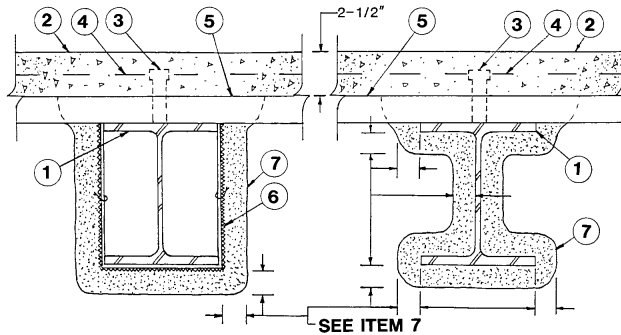


Design No. N742

Restrained Beam Ratings 1, 1-1/2, 2, 3 or 4 Hr. (See Item 7)
 Unrestrained Beam Ratings 1, 1-1/2, 2, 3 or 4 Hr. (See Item 7)
 Load Restricted for Canadian Applications — See Guide BXUV7



1. **Steel Beam** — W8x28 minimum size.
2. **Normal Weight or Lightweight Concrete** — Compressive strength 3500 psi. For normal weight concrete either carbonate or siliceous aggregate may be used. Unit weight 150 pcf. For lightweight concrete, unit weight 110 pcf.
3. **Shear Connector (Optional)** — Studs, 3/4 in. diam headed type or equivalent per AISC Specifications. Welded to top flange of beam through the steel floor units.
4. **Welded Wire Fabric** — 6 by 6, W1.4 by W1.4.
5. **Steel Floor And Form Units** — 1-1/2 to 3 in. deep fluted or cellular units, welded to beam.
6. **Metal Lath** — 3.4 lb/sq yd galv or painted expanded steel. Lath lapped 1 in. and tied together with No. 18 SWG galv steel wire spaced 6 in. OC.
7. **Spray-Applied Resistive Material*** — Applied by mixing with water according to instructions on each bag of material. Mixture can be spray or trowel applied in one or more coats. The thickness of the mixture is dependent on the type of floor unit. See table below for appropriate thickness. Crest areas above the beam shall be filled with spray-applied resistive material. The steel surfaces must be clean and free of dirt, loose scale, and oil. Minimum average density of 38 pcf and minimum individual density of 35 pcf for Type 800. Min avg density of 44 pcf with min ind value of 40 pcf for Type M-II. Min avg density of 44 pcf with min ind value of 42 pcf for Type TG. For method of density determination, refer to Design Information Section, Sprayed Material.

**Corrugated, Fluted And Cellular Floor Units,
 Lightweight or Normal Weight Concrete
 Minimum Spray-Applied Resistive Material Thickness, in.**

Rating Hr	Restrained Beam		Unrestrained Beam	
	Rating Hr	Thickness (in)	Rating Hr	Thickness (in)
1	7/16	3/8	7/16	3/8
1-1/2	1/2	5/8	1	5/8
2	3/4	13/16	1-1/4	13/16
3	1-3/16	1-5/16	1-1/2	1-5/16
4	1-7/16	1-7/16	1-3/4	1-7/16

**Fluted Floor Units Only, Lightweight Concrete
 Minimum Spray-Applied Resistive Material Thickness, in.**

Rating Hr	Restrained Beam		Unrestrained Beam	
	Rating Hr	Thickness (in)	Rating Hr	Thickness (in)
1	3/8	3/8	3/8	3/8
1-1/2	1/2	5/8	5/8	5/8
2	3/4	13/16	15/16	13/16
3	1-3/16	1-5/16	1-5/16	1-5/16
4	1-7/16	1-7/16	1-1/2	1-7/16

**Fluted Floor Units Only, Normal Weight Concrete
 Minimum Spray-Applied Resistive Material Thickness, in.**

Rating Hr	Restrained Beam		Unrestrained Beam	
	Rating Hr	Thickness (in)	Rating Hr	Thickness (in)
1	3/8	3/8	3/8	3/8
1-1/2	1/2	5/8	5/8	5/8
2	3/4	13/16	13/16	13/16
3	1	1-3/16	1-3/16	1-3/16
4	1-7/16	1-7/16	1-1/2	1-7/16

BERLIN CO LTD —Types M-II, or TG. Types M-II and TG Investigated for exterior use.
 ISOLATEK INTERNATIONAL — Types 800, M-II, or TG. Types 800, M-II and TG Investigated for exterior use.
 LUCKY CORE INSULATING MATERIALS
 MANUFACTURING L L C —Types M-II, or TG. Types M-II and TG Investigated for exterior use.
 NEWKEM PRODUCTS CORP —Types M-II, or TG. Types M-II and TG Investigated for exterior use.

*Bearing the UL Classification Mark