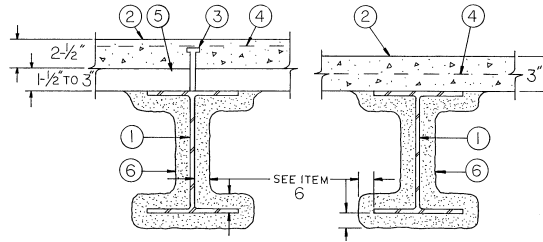


Design No. N708
Restrained Beam Ratings — 1, 2, 3 and 4 Hr.
Unrestrained Beam Ratings — 1, 1-1/2, 2, 3 and 4 Hr.
Load Restricted for Canadian Applications — See Guide BXUV7



1. **Steel Beam** — W8x28 min size.
2. **Normal Weight or Lightweight Concrete** — Compressive strength, 3000 psi. For normal weight concrete either carbonate or siliceous aggregate may be used. Unit weight, 148 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 the top flange of beam through the steel floor units.
4. **Welded Wire Fabric** — (Optional) — 6x6-10/10 SWG.
5. **Steel Floor and Form Units*** — 1-5/16 in. deep corrugated units; or 1-1/2 to 3 in. deep fluted or cellular units, welded to beam.
6. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in more than one coat to the beam to the final thicknesses shown below. When fluted or corrugated steel floor units are used, crest areas shall be filled with Spray-Applied Fire Resistive Materials above the beam. Beam surfaces must be clean and free of dirt, loose scale and oil. Min avg and min ind density of 15/14 pcf respectively. Min avg and min ind density of 19/18 pcf respectively for Types 7GP and 7HD. For method of density determination, see Design Information Section.

Rating Hr	Min Thkns In.	
	Restrained Beam Rating Hr	Unrestrained Beam Rating Hr
1	1/2	1/2
1-1/2	11/16	13/16
2	15/16	1-1/16
3	1-7/16	1-9/16
4	1-15/16	2

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the beams are supporting solid lightweight concrete slabs or lightweight concrete floor assemblies containing only fluted floor or form units.

Rating Hr	Min Thkns In.	
	Restrained Beam Rating Hr	Unrestrained Beam Rating Hr
1	7/16	7/16
1-1/2	1/2	3/4
2	13/16	1
3	1-5/16	1-5/16
4	1-5/8	1-5/8

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced to one-half that shown in the table:

Rating Hr	Min Thkns In.	
	Restrained Beam Rating Hr	Unrestrained Beam Rating Hr
1	9/16	9/16
1-1/2	3/4	7/8
2	1-1/16	1-3/16
3	1-5/8	1-3/4
4	2-3/16	2-5/16

The thicknesses of Spray-Applied Fire Resistive Materials shown in the table below are applicable when the thickness applied to the beams' lower flange edges is reduced by one-half and the beams are supporting solid lightweight concrete slabs or lightweight concrete floor assemblies containing only fluted floor or form units

Rating Hr	Min Thkns In.	
	Restrained Beam Rating Hr	Unrestrained Beam Rating Hr
1	7/16+	7/16+
1-1/2	1/2	3/4
2	13/16	1
3	1-5/16	1-9/16
4	1-13/16	2-1/16

+Thickness applied to beams' lower flange edges shall be a min of 1/4 in.

ARABIAN VERMICULITE INDUSTRIES —Types MK-5, MK-6/CBF, MK-6/ED, MK-6/HY, MK-6/HY Extended Set, MK-6/HB, MK-10 HB, MK-10 HB Extended Set, MK-6s, Sonophone 1.

W R GRACE & CO - CONN —Types MK-5, MK-6/HY, MK-6/HY Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-6/HB, MK-6s, RG, Monokote Acoustic 1.

GRACE KOREA INC —Types MK-6/CBF, MK-6/ED, MK-6/HY, MK-6/HY Extended Set, MK-10 HB, MK-10 HB Extended Set, MK-6/HB, MK-6s, Monokote Acoustic 1.

PYROK INC —Type LD.

SOUTHWEST FIREPROOFING PRODUCTS CO —Types 4, 5, 5EF, 5GP, 5MD, 7GP, 7HD, 8EF, 8GP, 8MD, 9EF, 9GP, 9MD.

*Bearing the UL Classification Mark