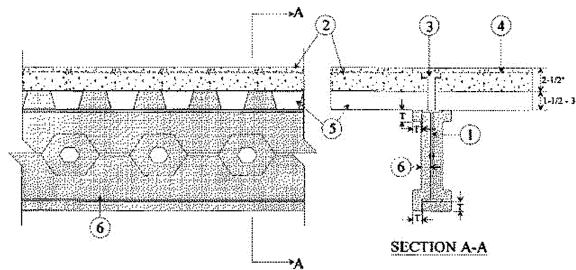


Design No. N846

Restrained Beam Ratings — 1, 1-1/2, 2, 3 & 4 Hr
 Unrestrained Beam Ratings — 1, 1-1/2, 2, 3 & 4 Hr
 Load Restricted for Canadian Applications — See Guide BXUV7



1. **Structural Steel Members*** — Type CB12 x 24 min. size.
CMC STEEL PRODUCTS
2. **Lightweight or Normal weight Concrete** — Compressive strength 4500 psi. For normal weight concrete either carbonate or silicious aggregate may be used. Unit weight 146 (plus or minus 3) pcf. For lightweight concrete, unit weight 110 (plus or minus 3) 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** — 6x6, W1.4xW1.4.
5. **Steel Floor And Form Units*** — Min. 1-1/2 in. to 3 in. deep fluted units, welded to beam.
6. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water in accordance with instructions on each bag of materials and spraying in one or more coats to beam which must be free of dirt, loose scale or oil. Surface of applied material may be lightly finished with a trowel. Crest areas above the beam shall be filled with Spray-Applied Fire Resistive Materials. Min average density of 15 pcf and min individual density of 14 pcf. For method of density determination, see Design Information Section, Sprayed Material.

Thickness, In.

Restrained and Unrestrained Beam Rating, Hr.	Min. Thickness, in.
1	5/8
1-1/2	15/16
2	1-3/16
3	1-13/16
4	2-1/2

BERLIN CO LTD —Types 300, 300ES, 300N or SB.
ISOLATEK INTERNATIONAL —Types 300, 300AC, 300ES, 300HS, 300N, or SB.
LUCKY CORE INSULATING MATERIALS
MANUFACTURING L L C —Types 300, 300ES, 300N, or SB.
NEWKEM PRODUCTS CORP —Types 300, 300ES, 300N, or SB.

- 6A. **Spray-Applied Fire Resistive Materials*** — As an alternate to Item 6 for a 2-1/2 hour rating, minimum thickness 1-1/4 in. applied by mixing with water in accordance with instructions on each bag of materials and spraying in one or more coats to beam which must be free of dirt, loose scale or oil. Surface of applied material may be lightly finished with a trowel. Crest areas above the beam shall be filled with Spray-Applied Fire Resistive Materials. Min average density of 22 and min individual density of 19 pcf. For method of density determination, see Design Information Section, Sprayed Material.
ISOLATEK INTERNATIONAL —Type 400.
LUCKY CORE INSULATING MATERIALS
MANUFACTURING L L C —Type 400.
NEWKEM PRODUCTS CORP —Type 400.

*Bearing the UL Classification Mark