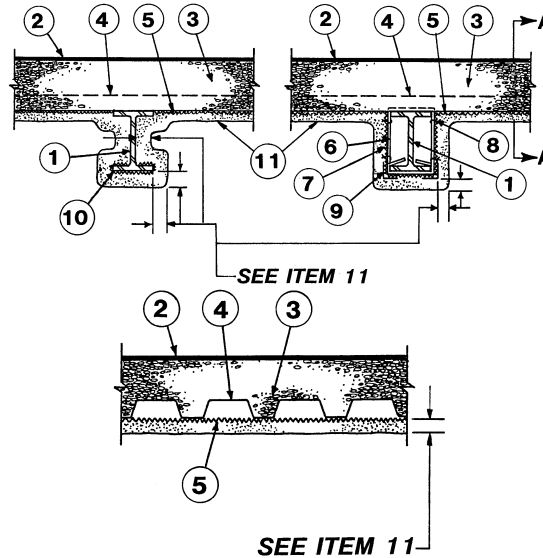


Design No. P721
 Restrained Assembly Rating — 1 Hr.
 Unrestrained Assembly Rating — 1 Hr.
 Unrestrained Beam Rating — 1 Hr.
 Load Restricted for Canadian Applications — See Guide BXUV7



SECTION A-A

1. **Steel Beam** — W12x16 min size.
2. **Roof Covering*** — Consisting of hot mopped or cold application bituminous materials compatible with insulation(s) described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials.
 - A) In lieu of Item 2, roof covering consisting of single-ply Roofing Membrane* that is either ballasted, adhered or mechanically attached as permitted under the respective manufacturer's Classification. See Fire Resistance Directory — Roofing Membranes (CHCI).
3. **Roof Insulation** — Compact thickness of 3-1/2 to 7-1/2 in. Dry mixture consisting of 12 cu ft of perlite aggregate* and 90 lb of hot asphalt conforming to ASTM D312-78, Type III. Resulting mixture spread loosely and compacted to approximately 70 percent of original volume. Compact density of 30 pcf max. See Fire Resistance Directory — **Perlite Aggregate*** (CFFX) for list of manufacturers.
4. **Steel Deck** — (Unclassified) — Min 1-1/2 in. deep, No. 18 MSG galvanized fluted deck. Flutes approx 6 in. OC, crests approx 3-1/2 in. wide. Attached to supports with welds 12 in. OC. Max adjacent units fastened together with No. 14 by 3/4 in. long, hex-head self-tapping steel screws 18 in. OC max. **Classified Steel Floor and Form Units*** — Noncomposite, 1-1/2 in. deep, galv units, min gauge is 22 MSG. Welded to supports with welding washers 12 in. OC. Side lap joints of adjacent units welded or secured together with No. 12 by 1/2 in. Self-drilling, Self-tapping steel screws midway between steel joists.
 CANAM STEEL CORP — Type P-3606 or P-3615
5. **Metal Ribbed Lath** — 3/8 in. ribbed, expanded steel weighing 3.4 lb per sq yd. Secured to underside of the steel deck (ribs upward) with S-12 by 3/8 in. long panhead, self-tapping steel screws spaced 12 in. O.C. longitudinally and 24 in. O.C. laterally. Steel screws fitted with 1/2 in. diameter steel washers. Lath lapped 1 in. min at ends and butted at sides.
6. **Lath Hangers** — No. 9 SWG steel wire wrapped completely around beam with ends overlapping beneath beam and secured by bending ends around beam's bottom flange edges toward beam's web 2 in. min. Spaced 27 in. O.C. max.
7. **Metal Lath** — (Optional) — Diamond mesh, expanded steel weighing 3.4 lb per sq yd. Wrapped round beam and secured to lath hangers with tie wire.
8. **Tie Wire** — No. 18 SWG galv steel wire; used to fasten lath to lath hangers. Space 6 in. O.C. max.
9. **Corner Bead** — (Optional) — No. 25 MSG galv expanded steel corner bead. May be used in conjunction with beam cage. When used, placed over lower corners of beam cage and attached to metal lath with tie wire spaced 18 in. O.C.
10. **Reinforcing Mesh or Metal Lath** — (Optional) — No. 20 SWG galv steel wire meshed to form 1 in. hexagons or alternately, expanded steel lath weighing 3.4 lb per sq yd. Secured to beam by bending tightly around the bottom flange, extending 2 in. min toward beams's web.
11. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water and spraying in multiple coats to final thicknesses shown in the table below. Steel surfaces to be sprayed shall be clean and free of dirt, oil and loose scale. Min average density of 44 pcf, min individual density of 40 pcf.
 For method of density determination, refer to Design Information Section, Sprayed Material.

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	Spray Applied Fire Resistive Mtl Thk In.		
			on Deck	w/Beam Cage on Beam	w/o Beam Cage
1	1	1	1	1-5/16	1-5/16

ISOLATEK INTERNATIONAL —Type M-II. Investigated for exterior use.

NEWKEM PRODUCTS CORP —Type M-II. Investigated for exterior use.

LUCKY CORE INSULATING MATERIALS

MANUFACTURING L L C —Type M-II. Investigated for exterior use.

- 11A. **Spray-Applied Fire Resistive Materials*** — Applied by mixing with water. Trowel applied in multiple coats to final thicknesses shown in the table below. Steel surfaces to be sprayed shall be clean and free of dirt, oil and loose scale. Min average density of 44 pcf, min individual density of 40 pcf.
 For method of density determination, refer to Design Information Section, Sprayed Material.

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FIRE-RESISTANCE RATINGS - ANSI/UL 263 (BXUV)

Restrained Assembly Rating Hr	Unrestrained Assembly Rating Hr	Unrestrained Beam Rating Hr	on Deck	Spray Applied Fire Resistive Mtl Thk In. on Beam	
				w/Beam Cage	w/o Beam Cage
1	1	1	1	1-5/16	1-5/16

ISOLATEK INTERNATIONAL —Type TG. Investigated for exterior use.

NEWKEM PRODUCTS CORP —Type TG. Investigated for exterior use.

LUCKY CORE INSULATING MATERIALS

MANUFACTURING L L C —Type TG. Investigated for exterior use.

*Bearing the UL Classification Mark