UL Product iQ™

BXUV.S802 - FIRE-RESISTANCE RATINGS - ANSI/UL 263

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.
- Authorities Having Jurisdiction should be consulted before construction.
- Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
- When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate methods of construction.
- Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263 Certified for United States

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada

See General Information for Fire-resistance Ratings - ANSI/UL 263 Certified for United States
Design Criteria and Allowable Variances

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada
Design Criteria and Allowable Variances

Design No. S802

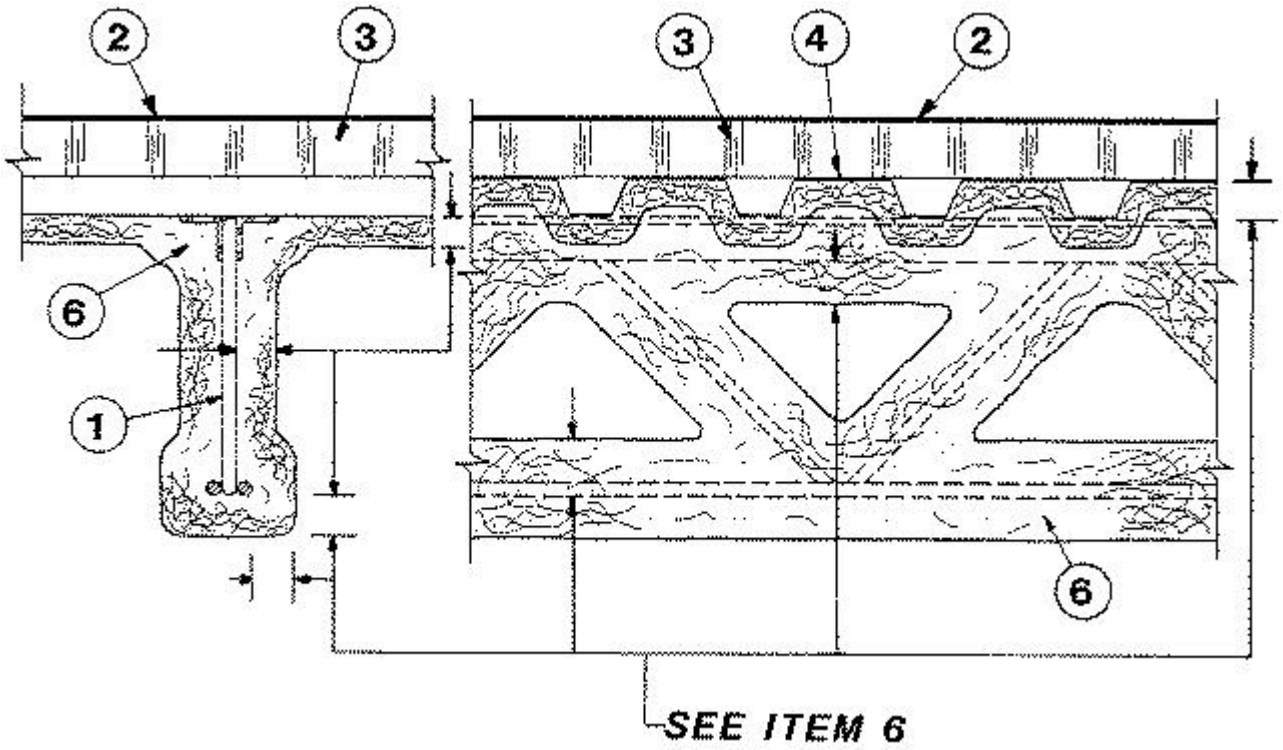
May 08, 2018

Restrained and Unrestrained Beam Ratings — 1, 1-1/2 and 2 Hr.

(See Items 6, 7 and 7A)

This design was evaluated using a load design method other than the Limit States Design Method (e.g., Working Stress Design Method). For jurisdictions employing the Limit States Design Method, such as Canada, a load restriction factor shall be used — See Guide BXUV or BXUV7

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1. **Steel Joist —** 10 H 3 or 12 K 3 with min web area of 0.441 sq in. for the 12 K 3 min size.

2. **Roof Covering* —** Consisting of hot mopped cold application or single-ply materials compatible with insulation(s) described herein which provide Class A, B or C coverings. See Roofing Materials and Systems Directory-Roof Covering Materials (TEVT).

3. **Roof Insulation* —** Consisting of building units, foamed plastic or mineral and fiber boards, applied in one or more layers. When multiple layers are used, end and side joints shall be offset a min of 12 in. in both directions in order to lap all joints. See category for names of companies providing Classified products-Building Units (BZXX), Foamed Plastic (CCVW) or Mineral and Fiber Boards (CERZ). Roof insulation shall be compatible with roof covering materials Class A, B or C system. See Roofing Materials and Systems Directory-Roof Covering Materials (TEVT).

4. **Adhesive* —** (Optional) — May be applied to steel roof deck units or between insulation layers at a max application rate of 0.4 gal per 100 sq ft. See Adhesives (BYWR) category for name of manufacturers.

5. **Steel Roof Deck —** (Unclassified) — Fluted, 24 MSG, galv 1-1/2 in. deep (min) with 3-1/2 in. wide flutes spaced 6 in. OC and 30 in. overall width. Ends overlapped at supports a minimum 1-1/2 in. and welded to supports minimum 12 in. OC. Adjacent units button-punched or welded together at midspan along side joints.

6. **Spray-Applied Fire Resistive Materials* —** Applied by spraying with water, in one or more coats to a final untamped thickness as shown above to steel surfaces which are free of dirt, oil or scale. Areas between the underside of the roof units and the beam shall be filled with the protection material. Use of adhesive is optional. Use of tamping is optional. Note: When metal lath is used on joist, the protection material is to be applied over the lath with no min thickness requirements.

Restrained & Unrestrained Beam Rating Hr	Type of Joist	Min Thkns on Joist	Min Thkns on Steel Deck In.
1	10H3 or 12K3	1-1/2	1
1-1/2	12K3	1-7/8	1-1/8
2	12K3	2-1/4	1-1/4

ISOLATEK INTERNATIONAL — Type D-C/F, II, or Type II HS with min avg density of 13 pcf and min ind density of 11 pcf. Type HP with avg and min ind densities of 22 and 19 pcf, respectively. Type EBS or Type X adhesive/sealer is optional. For method of density determination, refer to Design Information Section, Sprayed Material.

7. **Metal Lath —** (Optional-not shown) — 3/8 in. diamond mesh, expanded steel weighing 2.5 lb/sq yd secured to one side of joist using No. 16 SWG steel tie wire located at the mid-height of every other web.

7A. **Glass Fiber Mesh —** (Optional-not-shown) — As an alternate to metal lath (Item 7) min 3/32 in. square mesh, coated fiberglass scrim fabric, weighing a min of 1.9 oz/sq yd shall be attached to one side of each joist web member. The method of attachment must be sufficient to hold the mesh and fire protection material during application and curing of the material. An acceptable method of attaching the mesh is by embedding the mesh in min 1/4 in. long beads of hot melted glue. The beads of glue shall be spaced min 12 in. OC along the top chord of the bar joists. Another method of attachment is the use of 1-1/4 in. long, 1/2 in. wide hairpin clips formed from 0.064 in. diameter steel wire, alternating from top to bottom of the joist web member.

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