



BYBU.XR730 - FIRE-RESISTANCE RATINGS - ANSI/UL 1709

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.

BYBU - Fire-resistance Ratings - ANSI/UL 1709

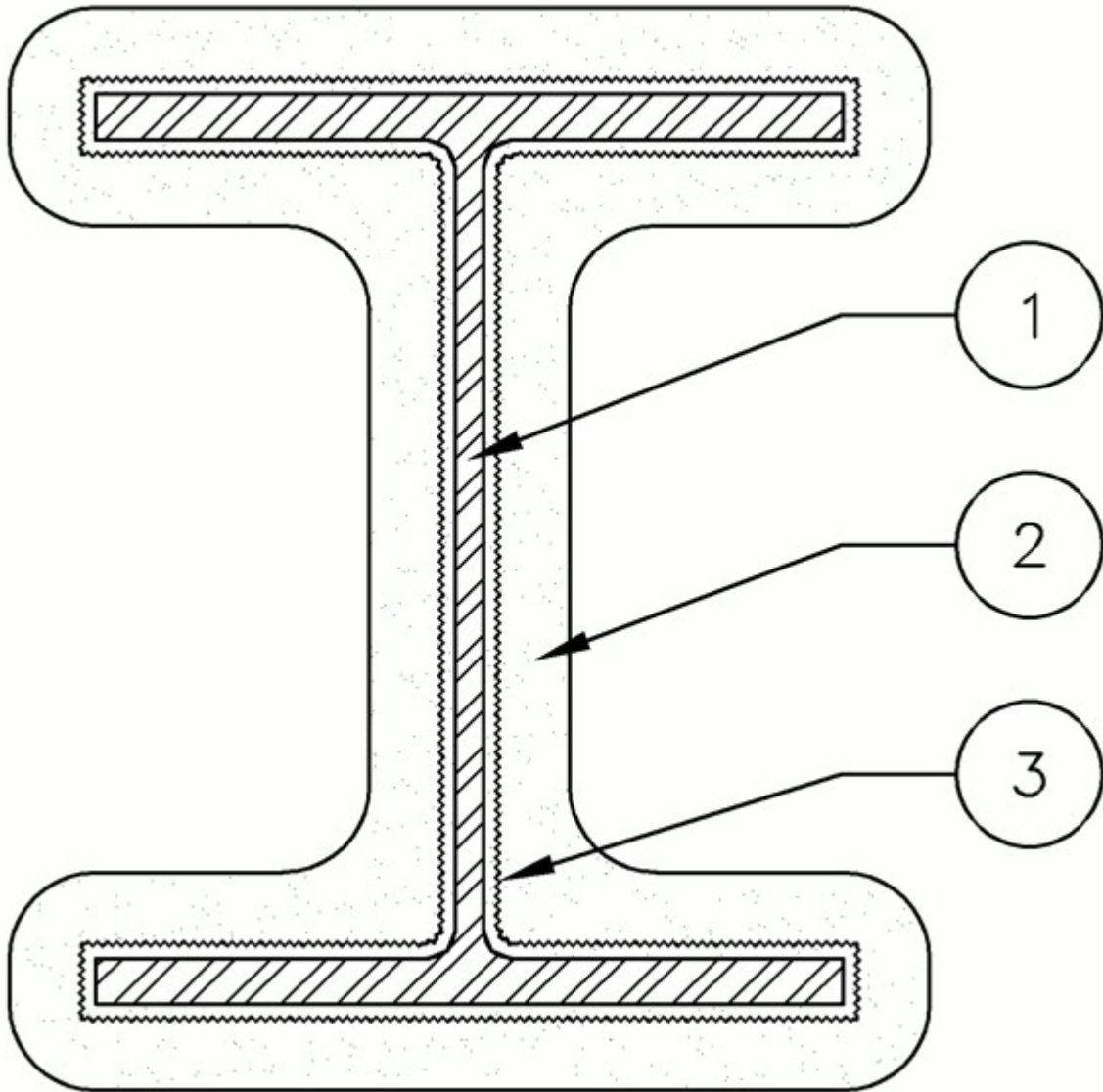
See General Information for Fire-resistance Ratings - ANSI/UL 1709

Design No. XR730

January 03, 2020

Ratings — 3/4, 1, 1-1/2, 2, 2-1/2, 3 or 4 Hr

*** 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 Column** — Min size of column W10x49.

2. **Spray-Applied Fire-Resistive Materials*** — See table below for appropriate thickness. Prepared by mixing with water according to instructions on each bag of mixture and spraying in one or more coats, as necessary, to the column surfaces, which must be clean and free of dirt, loose scale and oil. As an alternate to spraying, Type M-II/P may be machine mixed and trowel applied. Application to follow the column profile. Min avg. density of 704 kg/m³ (44 pcf), with min ind. value of 640 kg/m³ (40 pcf) for Type M-II. Min avg density of 753 kg/m³ (47 pcf), with min ind. value of 689 kg/m³ (43 pcf) for Type M-II/P. Min avg. density of 704 kg/m³ (44 pcf), with min ind. value of 672 kg/m³ (42 pcf) for Type TG. For method of density determination, see Design Information Section, Sprayed Material. Types M-II, M-II/P, and TG investigated for UL 2431 Classification Category I-A and Exterior Environmental Purpose.

Rating Hr	Minimum Thickness mm
3/4	17.5
1	20.7
1-1/2	27.0
2	32.5
2-1/2	36.8
3	41.2

4	50.0
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BERLIN CO LTD — Type M-II or Type TG, investigated for exterior use, and additionally evaluated for acid and solvent spray exposure.

GREENTECH ASIA PACIFIC SDN BDH — Type M-II or M-II/P, investigated for exterior use, and additionally evaluated for acid and solvent spray exposure.

GREENTECH THERMAL INSULATION PRODUCTS MFG CO L L C — Type M-II, M-II/P or Type TG, investigated for exterior use, and additionally evaluated for acid and solvent spray exposure.

ISOLATEK INTERNATIONAL — Type M-II, M-II/P or Type TG, investigated for exterior use, and additionally evaluated for acid and solvent spray exposure.

NEWKEM PRODUCTS CORP — Type M-II, M-II/P or Type TG, investigated for exterior use, and additionally evaluated for acid and solvent spray exposure.

PERLITE ITALIANA SRL — Type M-II or M-II/P, investigated for exterior use, and additionally evaluated for acid and solvent spray exposure.

3. **Reinforced Mesh** — Galv steel wire, No. 20 SWG, twisted to form 1 or 2 in. hexagons. Embedded in Spray-Applied Fire Resistive Materials approximately mid-depth of coating. Wrapped around the entire column surface, with minimum 1 inch overlap. Attached with pins and washers to center of webs and flanges, spaced 16 in OC. When Type TG is used, mesh shall not be installed until approximate mid-depth has been applied.

3A. **Metal Lath** — (Not Shown) — In lieu of the reinforced mesh, galv. expanded steel lath, weighing 3.4 lb per sq yd may be used. Lath wrapped around entire column surface with minimum 1 in overlap. Secured with power actuated fasteners located at the center of webs and flanges, spaced 18 in OC. When Type TG is used, mesh shall not be installed until approximate mid-depth has been applied.

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