UL Product iQ™

BYBU.XR725 - 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

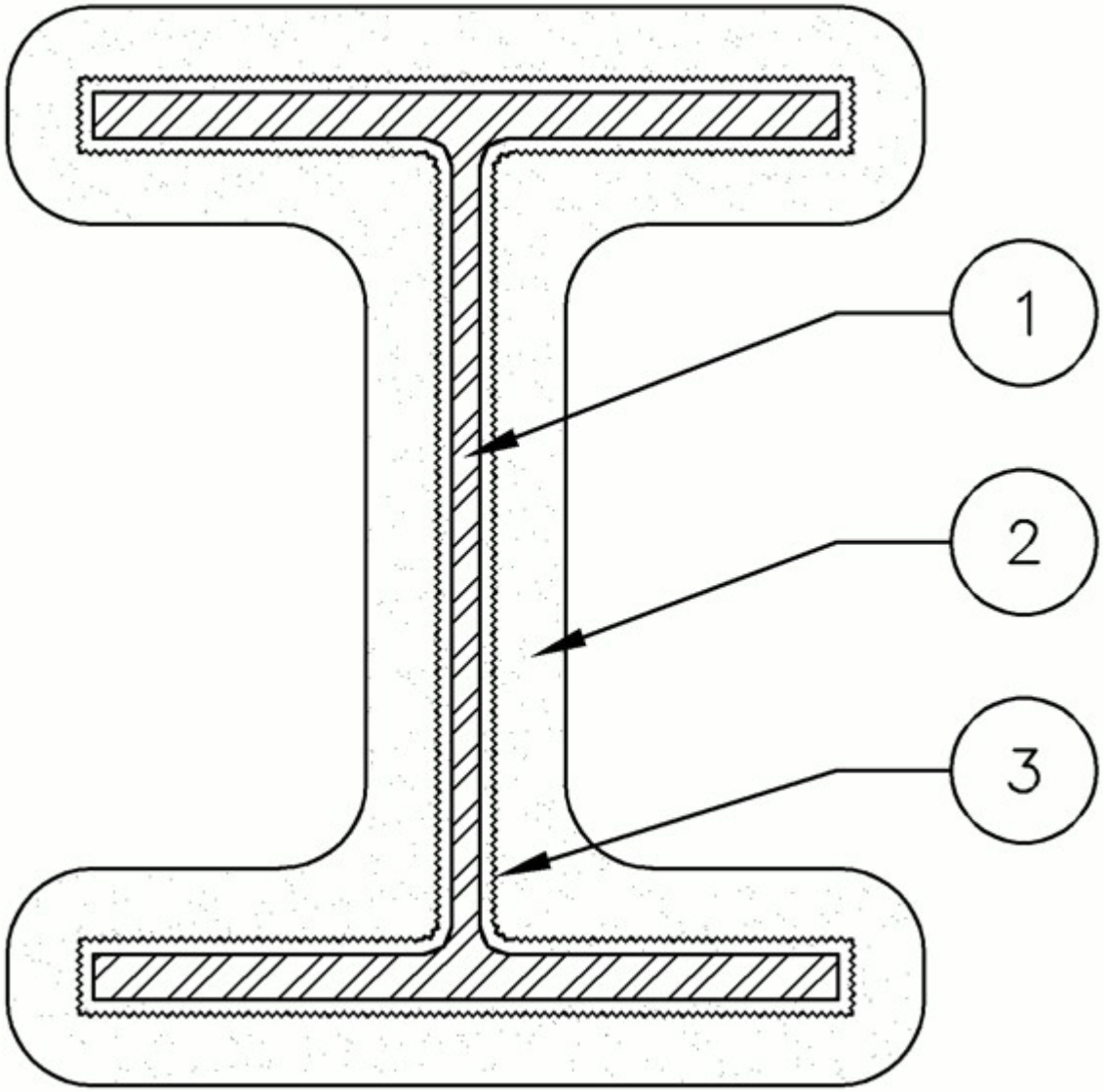
See General Information for Fire-resistance Ratings - ANSI/UL 1709

Design No. XR725

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.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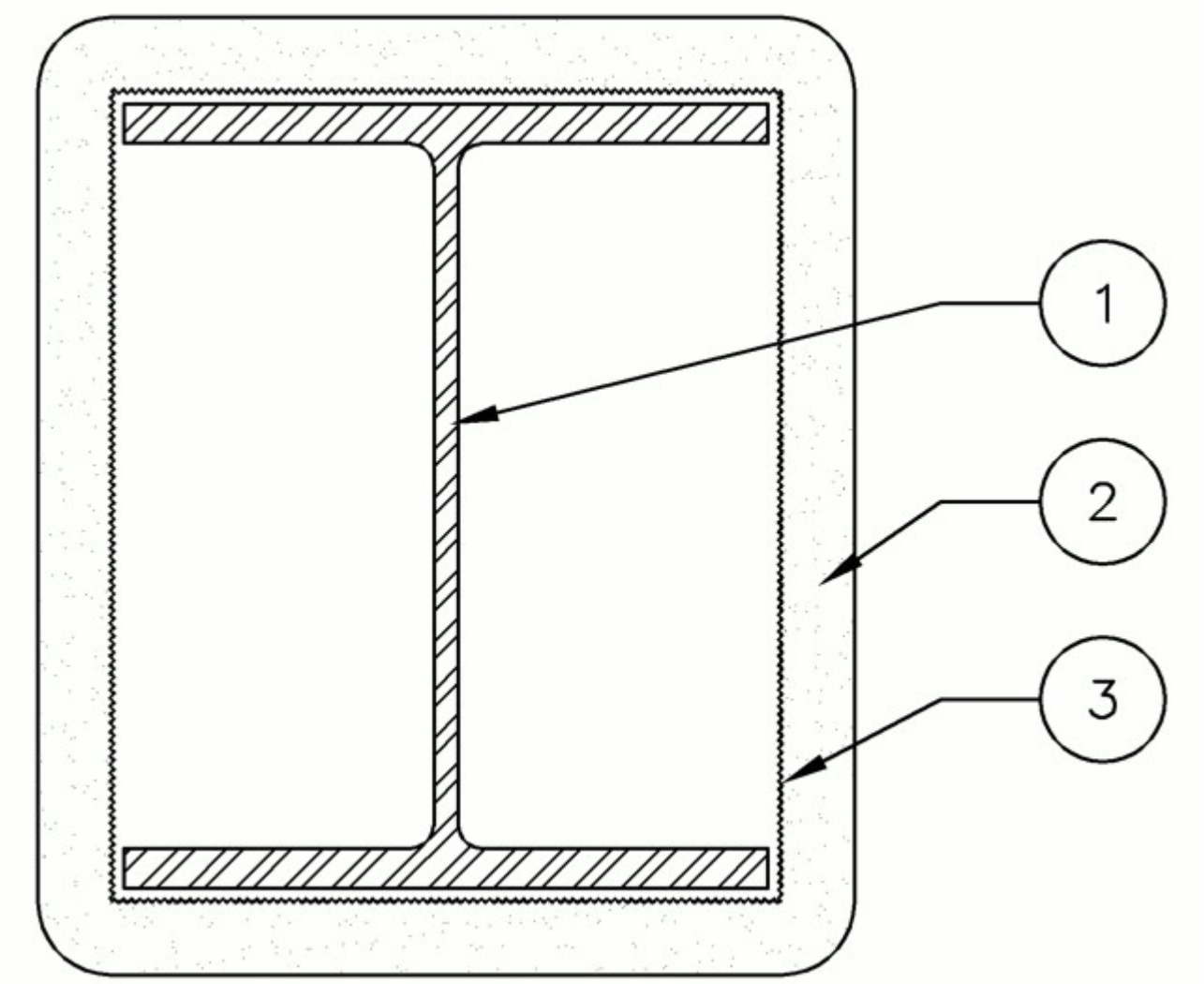

1. **Steel Column —** Min size of column W8x10.

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, onto the metal lath surfaces, which must be clean and free of dirt, loose scale and oil. As an alternate to spraying, may be machine mixed and trowel applied. Min avg density of 47 pcf (753 kg/m^3), with min individual value of 43 pcf (689 kg/m^3). For method of density determination, see Design Information Section, Sprayed Material. Type M-II/P investigated for UL 2431 Classification Category I-A and Exterior Environmental Purpose.

Min Required Thickness (inch) for Hourly Rating Period (min)

W/D	45	60	90	120	150	180	240
0.33	5/8	3/4	15/16	1-1/8	1-1/4	1-7/16	1-13/16
0.43	5/8	3/4	15/16	1-1/8	1-1/4	1-7/16	1-13/16
0.57	5/8	3/4	15/16	1-1/8	1-1/4	1-7/16	1-13/16
0.68	1/2	9/16	3/4	15/16	1-1/8	1-5/16	1-11/16
0.75	1/2	9/16	3/4	7/8	1-1/16	1-3/16	1-1/2
0.84	1/2	9/16	3/4	7/8	1-1/16	1-1/8	1-7/16
0.90	1/2	9/16	3/4	7/8	1-1/16	1-1/8	1-7/16
1.00	7/16	9/16	3/4	7/8	1-1/16	1-1/8	1-7/16

1.10	3/8	9/16	3/4	7/8	1-1/16	1-1/8	1-7/16
1.20	5/16	1/2	3/4	7/8	1-1/16	1-1/8	1-7/16
1.30	5/16	1/2	3/4	7/8	1-1/16	1-1/8	1-7/16
1.40	1/4	7/16	3/4	7/8	1-1/16	1-1/8	1-7/16
1.50	1/4	3/8	11/16	7/8	1-1/16	1-1/8	1-7/16
1.60	1/4	3/8	5/8	7/8	1-1/16	1-1/8	1-7/16
1.63	1/4	3/8	5/8	3/4	15/16	1-1/16	1-3/8
1.70	1/4	5/16	5/8	3/4	15/16	1-1/16	1-3/8
1.80	1/4	5/16	9/16	3/4	15/16	1-1/16	1-3/8
1.90	1/4	5/16	1/2	3/4	15/16	1-1/16	1-3/8
2.00	1/4	1/4	1/2	11/16	15/16	1-1/16	1-3/8
2.10	1/4	1/4	7/16	11/16	7/8	1-1/16	1-3/8
2.20	1/4	1/4	7/16	5/8	13/16	1-1/16	1-3/8
2.30	1/4	1/4	7/16	5/8	13/16	1	1-3/8
2.40	1/4	1/4	3/8	9/16	3/4	15/16	1-5/16
2.50	1/4	1/4	3/8	9/16	3/4	7/8	1-1/4
2.55	1/4	1/4	3/8	9/16	11/16	7/8	1-1/4

Min Required Thickness (mm) for Hourly Rating Period (min)

HP/A	45	60	90	120	150	180	240
406	16	20	24	29	32	37	47
312	16	20	24	29	32	37	47
235	16	20	24	29	32	37	47
197	13	15	20	24	29	34	43
179	13	15	20	23	27	31	39
160	13	15	20	23	27	29	37
149	13	15	20	23	27	29	37
134	12	15	20	23	27	29	37
122	10	15	20	23	27	29	37
112	8	13	20	23	27	29	37
103	8	13	20	23	27	29	37
96	7	12	20	23	27	29	37

89	7	10	18	23	27	29	37
84	7	10	16	23	27	29	37
82	7	10	16	20	24	27	35
79	7	8	16	20	24	27	35
74	7	8	15	20	24	27	35
71	7	8	13	20	24	27	35
67	7	7	13	18	24	27	35
64	7	7	12	18	23	27	35
61	7	7	12	16	21	27	35
58	7	7	12	16	21	26	35
56	7	7	10	15	20	24	34
54	7	7	10	15	20	23	32
53	7	7	10	15	18	23	32

ISOLATEK INTERNATIONAL — Type M-II/P investigated for Exterior Use, and additionally evaluated for acid and solvent spray exposure.

GREENTECH ASIA PACIFIC SDN BDH — Type 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/P investigated for Exterior Use, and additionally evaluated for acid and solvent spray exposure.

NEWKEM PRODUCTS CORP — Type M-II/P investigated for Exterior Use, and additionally evaluated for acid and solvent spray exposure.

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

3. **Metal Lath —** Expanded steel lath, weighing 3.4 lb per sq yd. 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.

3A. **Metal Lath —** For boxed type protection. Min 3.4 lb per sq yd expanded steel. Lath lapped minimum 1 in. at vertical joint on column flange and secured with power actuated fasteners, located at the center of the flanges, spaced 18 in OC.

4. **Corner Bead —** (Optional, Not Shown) — No. 25 MSG galv expanded steel corner bead with minimum 2 in. legs may be used in conjunction with column cage. When used, placed over each corner of column cage and attached to column with powder actuated fasteners and washers or attached to metal lath with tie wire spaced 18 in. O.C.

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Last Updated on 2020-01-03