

MONOKOTE® FIREPROTECT™

Technical Reference Package

Mineral Wool Fire Protection Board

PRODUCT INFORMATION | UL FIRE RESISTANCE DESIGNS | SAFETY DATA SHEETS

Consolidated product, listing and safety documentation for technical reference.

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PDF page numbers reflect this combined reference package.

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REFERENCE STRUCTURE

Product literature first, followed by UL design listings and the two component safety data sheets.

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MONOKOTE® FIREPROTECT™

Mineral Wool Fire Protection Board

MONOKOTE® FIREPROTECT™ Board is a UL Classified, lightweight and durable fireproofing board that may be used to protect structural steel members for up to 3 hours. It has excellent physical properties including industry leading R-values and Noise Reduction Coefficients; is non-combustible, non-flammable, asbestos-free and may be applied year-round. It is installed dry without disruption to other trades and does not require steel surface preparation or specialized equipment. It can be fastened to primed or painted steel. Alone in this space, it has VOC Emissions Data and is comprised of 20% recycled material.

MONOKOTE® FIREPROTECT™ installs without the adhesion and compatibility concerns associated with spray applied fireproofing or the melamine issues associated with intumescent. It is easily cut with a knife, hand-or table saw. **MONOKOTE® FIREPROTECT™** is fastened to the substrate using our pigtail screws and is shipped on pallets in stretch-wrapped polyethylene for ease of handling and short-term storage.

Typical installations would include commercial buildings, data centers, industrial plants, gymnasiums warehouses, parking garages, power plants or elevator shafts.

PRODUCT DETAILS

MONOKOTE® FIREPROTECT™ is supplied in a standard board size 47 ¼ L x 39 ¾ W (1200mm x 1000mm) with thicknesses ranging from 1⅜-4 in (20-100mm), palletized and shrink- wrapped. The board can be cut using a table/hand saw or knife.

Noggings 4” (100mm) wide x 1 ⅝” (40mm) minimum thickness are cut to fit tightly between the flanges at a maximum of 24” on center.

For deck applications it is fastened directly to the deck using standard deck screws.

TECHNICAL DETAILS

	ASTM Test Method	MONOKOTE® FIREPROTECT™
Air Erosion	ASTM E859	0.00g at 1200 ft / min
Tensile Strength	ASTM C209	14.6 psi
Density	ASTM E605	10.0 pcf (161 kg/m³)
Compressive Strength (10% deformation)	ASTM C165	3.45 psi
Thermal Performance (R-value)	ASTM C158	4.5 per inch
Sound Absorption (NRC)	ASTM C423	0.9
Fungal Resistance	ASTM C1338	No growth
Surface Burning Characteristics (Flame Spread / Smoke Development)	ASTM E84	0 / 0 (Class A)
Surface Burning Characteristics (Flame Spread / Smoke Development)	ULC CAN S102	5 / 0 (Class A)
Combustibility	ASTM E1354 ASTM E136	Non-combustible

To learn more about **MONOKOTE® FIREPROTECT™** and to see if it is the right solution for your next project, contact your local GCP Territory Manager.



MONOKOTE[®] FIREPROTECT[™] Product Data Sheet

Product Description

MONOKOTE[®] FIREPROTECT[™] is a rigid mineral wool board designed to deliver fire resistance, thermal insulation, and acoustical management within a single integrated product. MONOKOTE FIREPROTECT is engineered to meet stringent fire resistance requirements for steel structures, offering robust fire protection with ease of installation. MONOKOTE FIREPROTECT is ideal for commercial, industrial, and data center projects. It can be installed quickly at any stage of construction, no matter the roof traffic, temperature, or condition of the substrate.

MONOKOTE FIREPROTECT is available in multiple thicknesses: 1 3/16, 1, 1 1/4, 1 5/8, 2, 2 3/8, 3 1/4, 4 in (20, 25, 30, 40, 50, 60, 80, 100mm)

Product Advantages

- UL-tested and compliant with ASTM E119 / CAN ULC S101 for columns—both HSS and W-shapes, beams, joists, floor/ceiling, and roof/ceiling assemblies.
- Fully loaded to 50 ksi fire tests on joists, beams and decking, with a wide range of tested sizes.
- Designed for dry and rapid installation without disruption to other trades.
- Installs dry without steel surface preparation or specialized equipment; compatible with primed, painted and galvanized steel substrates.
- Suitable for interior and exterior applications with weather exposure during construction.
- Non-combustible, non-flammable, and asbestos-free.
- VOC Emissions and Content reports available.
- High R- and Noise Reduction Coefficient (NRC)- values.
- Comprised of 20% recycled material.

System Components

Rigid mineral wool board; accessories include Monokote[®] FireProtect[™] pigtail screws for fastening, MONOKOTE FIREPROTECT Noggins for beams and column.

Dimensions and Packaging

Board: 47 1/4 L x 39 3/8 W; Thicknesses: 1 3/16, –4 in (20–100mm); Density: 10 pcf (~150 kg/m³) ; Supplied on wooden pallets, stacked or packaged; accessories packaged in labeled boxes.

Installation

MONOKOTE FIREPROTECT is supplied in a standard board size 47 ¼ L x 39 ¾ W (1200mm x 1000mm) with thicknesses ranging from 1 3/16, -4 in (20–100mm), palletized and shrink- wrapped. The board can be cut using a table/hand saw or knife. Noggings 4" (100mm) wide x 1 ¾" (40mm) minimum thickness are cut to fit tightly between the flanges 24" on center. For deck applications it is fastened directly to the deck using standard deck screws.

MONOKOTE FIREPROTECT is cut and installed to box the steel and is held in place with MONOKOTE FIREPROTECT Screws at 6" on center. Refer to the UL Fire Resistance directory for the UL Designs and details. Please refer to our field Installation manual for specific design and application details.

Technical Properties

Air Erosion	ASTM E859	0.00g at 5800 ft / min
Tensile Strength	ASTM C209	14.6 psi
Density	ASTM E605	10.0 pcf (161 kg/m3)
Compressive Strength (10% deformation)	ASTM C165	3.45 psi
Thermal Performance (R-value)	ASTM C158	4.5 per inch
Sound Absorption (NRC)	ASTM C423	0.9
Fungal Resistance	ASTM C1338	No growth
Surface Burning Characteristics (Flame Spread / Smoke Development)	ASTM E84	0 / 0 (Class A)
Surface Burning Characteristics (Flame Spread / Smoke Development)	ULC CAN S102	5/0 (Class A)
Combustibility	ASTM E1354 ASTM E136	Non-combustible

North America customer service: 1-877-4AD-MIX (1-877-423-6491)

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This document is only current as of the last updated date stated below and is valid only for use in the United States. It is important that you always refer to the currently available information at the URL below to provide the most current product information at the time of use. Additional literature such as Contractor Manuals, Technical Bulletins, Detail Drawings and detailing recommendations and other relevant documents are also available on www.gcpat.com. Information found on other websites must not be relied upon, as they may not be up-to-date or applicable to the conditions in your location and we do not accept any responsibility for their content. If there are any conflicts or if you need more information, please contact GCP Customer Service.

Last Updated: 2026-08-05

prod-gcpat-com.content.saint-gobain.io/solutions/products/monokote-fireprotect/monokote-fireprotect-product-data-sheet

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](#)

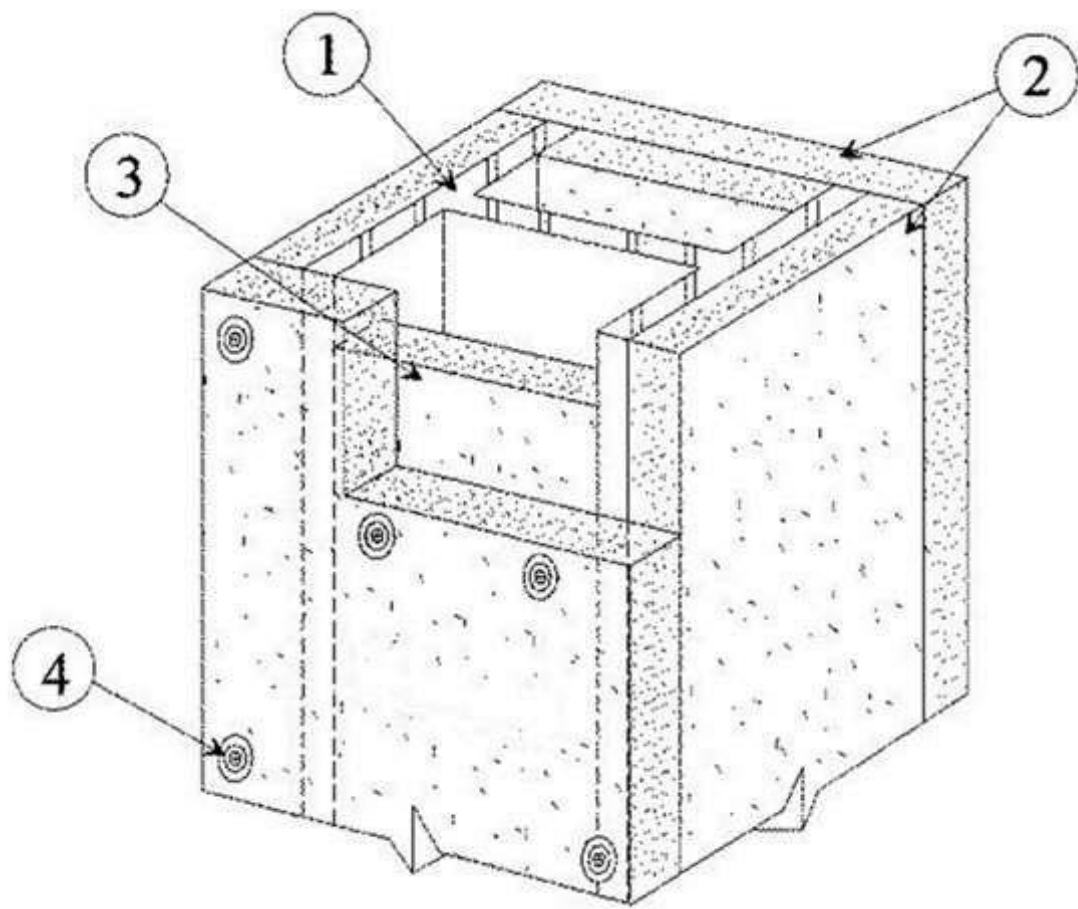
[See General Information for Fire Resistance Ratings – CAN/ULC-S101 Certified for Canada Design Criteria and Allowable Variances](#)

Design No. X316

August 05, 2026

Rating — 1, 1-1/2, 2, and 3 Hr

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



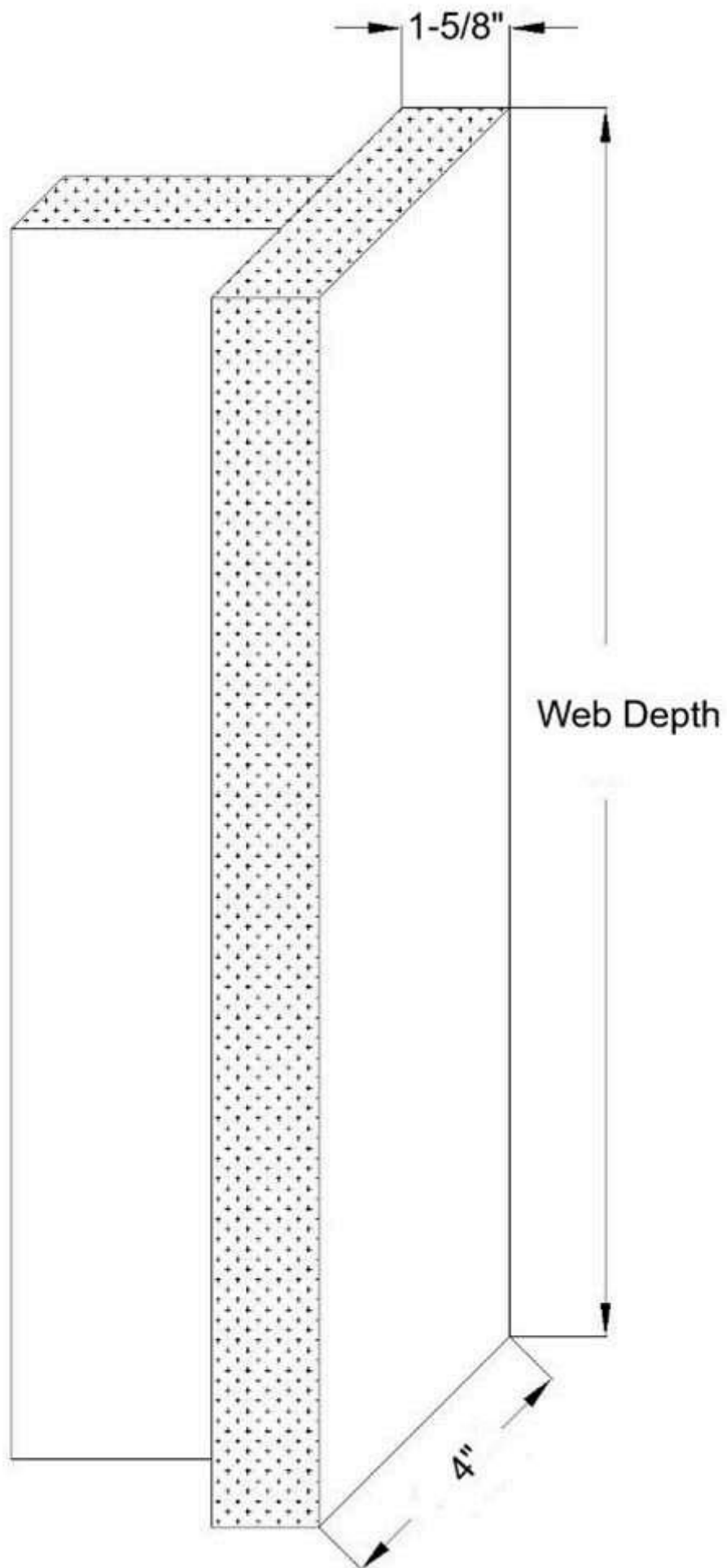


Figure 1: Tee Noggings for column webs deeper than 18 in.

1. **Steel Column** — Wide flange steel column, min size shown in the table in Item No. 2. Use box configuration shape factor to determine equivalent or larger column sizes.
2. **Mineral and Fiber Boards** — Boards cut and attached to columns at the thickness described in the table below. Boards placed parallel with the flange of the columns are cut to the width of the flange. Boards placed parallel with the web of the columns are cut to the width of the column (web side) plus twice the board thickness. Joints centered on noggings and fastened as described below.

Min. Required Thickness (in) for Hourly Rating Period

Steel Size	Boxed W/D	1 HR	1-1/2 HR	2 HR	3 HR
W8×10	0.42	60	90		
W10×12	0.43	60	90		
W12×14	0.44	60	90		
W6×9	0.46	60	90		
W12×16	0.50	60	90		
W10×15	0.54	60	80		
W8×13	0.54	60	80		
W12×19	0.59	50	80	100	
W14×22	0.59	50	80	100	
W6×12	0.60	50	80	100	
W10×17	0.60	50	70	100	
W16×26	0.61	50	70	100	
W8×15	0.62	50	70	100	
W6×15	0.63	50	70	100	
W10×19	0.67	50	70	90	
W8×18	0.67	50	70	90	
W12×22	0.67	50	70	90	
W10×22	0.69	50	70	90	
W12×26	0.70	40	60	90	
W16×31	0.72	40	60	90	
W14×30	0.73	40	60	90	

W18×35	0.74	40	60	80	
W8×21	0.78	40	60	80	
W6×16	0.78	40	60	80	
W16×36	0.79	40	50	80	
W4×13	0.79	40	50	80	
W12×30	0.80	40	50	80	
W5×16	0.80	40	50	80	
W21×44	0.81	40	50	80	
W10×26	0.81	40	50	80	
W14×34	0.82	40	50	70	
W6×20	0.82	40	50	70	
W8×24	0.83	30	50	70	
W18×40	0.84	30	50	70	100
W16×40	0.87	30	50	70	100
W24×55	0.90	25	40	60	100
W14×38	0.91	25	40	60	100
W21×50	0.91	25	40	60	100
W10×30	0.92	25	40	60	100
W5×19	0.93	25	40	60	100
W10×33	0.93	25	40	60	100
W8x28	0.96	20	30	50	90
W8x31	0.97	20	30	50	90
W16x45	0.97	20	30	50	90
W18x50	0.98	20	30	50	90
W14x43	0.99	20	30	50	90
W6x25	1.00	20	30	50	90
W12x40	1.01	20	30	50	90

W24x62	1.01	20	30	50	90
W21x57	1.03	20	30	50	90
W24x68	1.04	20	30	50	90
W21x62	1.06	20	30	50	90
W16x50	1.07	20	30	50	90
W18x55	1.07	20	30	50	90
W8x35	1.08	20	30	50	90
W10x39	1.09	20	30	50	90
W14x48	1.10	20	30	50	90
W12x45	1.12	20	30	50	90
W27x84	1.15	20	30	50	80
W24x76	1.16	20	30	50	80
W21x68	1.16	20	30	50	80
W18x60	1.17	20	30	50	80
W12x53	1.20	20	30	50	80
W14x53	1.21	20	30	50	80
W16x57	1.21	20	30	50	80
W8x40	1.23	20	30	50	80
W10x49	1.23	20	30	50	80
W30x99	1.23	20	30	50	80
W12x50	1.23	20	30	50	80
W21x73	1.24	20	30	40	80
W10x45	1.24	20	30	40	80
W18x65	1.25	20	30	40	80
W16x67	1.26	20	30	40	80
W24x84	1.27	20	30	40	80
W27x94	1.27	20	30	40	80

W14x61	1.28	20	30	40	80
W18x76	1.30	20	30	40	80
W12x58	1.31	20	25	40	70
W33x118	1.33	20	25	40	70
W30x108	1.34	20	25	40	70
W10x54	1.34	20	25	40	70
W12x65	1.35	20	25	40	70
W18x71	1.36	20	25	40	70
W27x102	1.37	20	25	40	70
W21x83	1.39	20	25	40	70
W24x94	1.41	20	25	40	70
W24x104	1.41	20	25	40	70
W14x68	1.42	20	25	40	70
W36x135	1.42	20	25	40	70
W30x116	1.43	20	25	40	70
W16x77	1.44	20	25	40	70
W8x48	1.45	20	25	40	70
W33x130	1.46	20	25	40	70
W18x86	1.46	20	25	40	70
W10x60	1.48	20	25	40	70
W12x72	1.48	20	25	40	70
W21x101	1.50	20	25	40	60
W14x74	1.52	20	25	30	60
W30x124	1.52	20	25	30	60
W27x114	1.52	20	25	30	60
W21x93	1.55	20	25	30	60
W36x150	1.57	20	25	30	60

W33x141	1.57	20	25	30	60
W24x117	1.58	20	25	30	60
W14x90	1.58	20	25	30	60
W12x79	1.61	20	25	30	60
W30x132	1.62	20	25	30	60
W18x97	1.63	20	25	30	60
W16x89	1.64	20	25	30	60
W21x111	1.64	20	25	30	60
W10x68	1.66	20	20	25	50
W36x160	1.67	20	20	25	50
W14x82	1.68	20	20	25	50
W33x152	1.69	20	20	25	50
W8x58	1.71	20	20	25	50
W14x99	1.72	20	20	25	50
W24x131	1.75	20	20	25	50
W27x146	1.76	20	20	25	50
W36x170	1.76	20	20	25	50
W12x87	1.77	20	20	25	50
W18x106	1.77	20	20	25	50
W21x122	1.79	20	20	25	50
W16x100	1.82	20	20	25	50
W10x77	1.85	20	20	25	50
W36x182	1.88	20	20	25	50
W14x109	1.89	20	20	25	50
W30x173	1.91	20	20	25	50
W12x96	1.93	20	20	25	50
W21x132	1.93	20	20	25	50

W27x161	1.94	20	20	25	50
W8x67	1.94	20	20	25	50
W24x146	1.94	20	20	25	50
W18x119	1.96	20	20	25	50
W36x194	2.00	20	20	25	50
W33x201	2.03	20	20	25	50
W14x120	2.05	20	20	25	50
W10x88	2.09	20	20	25	50
W30x191	2.09	20	20	25	50
W12x106	2.11	20	20	25	50
W27x178	2.12	20	20	25	50
W21x147	2.12	20	20	25	50
W24x162	2.13	20	20	25	50
W36x210	2.15	20	20	25	50
W36x230	2.19	20	20	25	50
W33x221	2.22	20	20	25	50
W14x132	2.24	20	20	25	50
W30x211	2.29	20	20	25	50
W36x245	2.33	20	20	25	50
W10x100	2.34	20	20	25	50
W12x120	2.36	20	20	20	40
W14x145	2.39	20	20	20	40
W33x241	2.41	20	20	20	40
W36x260	2.45	20	20	20	40
W10x112	2.57	20	20	20	40
W14x159	2.60	20	20	20	40
W12x136	2.64	20	20	20	40

W36x280	2.64	20	20	20	40
W36x300	2.80	20	20	20	40
W14x176	2.85	20	20	20	40
W12x152	2.90	20	20	20	40
W14x193	3.09	20	20	20	40
W12x170	3.20	20	20	20	40
W14x211	3.35	20	20	20	40
W12x190	3.51	20	20	20	40
W14x233	3.65	20	20	20	40
W12x210	3.82	20	20	20	40
W14x257	3.97	20	20	20	40
W12x230	4.11	20	20	20	40
W14x283	4.31	20	20	20	40
W12x252	4.44	20	20	20	40
W14x311	4.67	20	20	20	40
W12x279	4.81	20	20	20	40
W14x342	5.04	20	20	20	40
W12x305	5.17	20	20	20	40
W14x370	5.38	20	20	20	40
W12x336	5.56	20	20	20	40
W14x398	5.70	20	20	20	40
W14x426	6.02	20	20	20	30
W14x455	6.35	20	20	20	30
W14x500	6.83	20	20	20	30
W14x550	7.35	20	20	20	30
W14x605	7.90	20	20	20	25
W14x665	8.46	20	20	20	25

W14x730	9.06	20	20	20	20
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The thicknesses in the table below are conversions from the metric table above, with rounding up to the nearest 1/8" (20 mm rounded to 13/16").

Min. Required Thickness (in) for Hourly Rating Period

Steel Size	Boxed W/D	1 HR	1-1/2 HR	2 HR	3 HR
W8×10	0.42	2 3/8	3 5/8	-	-
W10×12	0.43	2 3/8	3 5/8	-	-
W12×14	0.44	2 3/8	3 5/8	-	-
W6×9	0.46	2 3/8	3 5/8	-	-
W12×16	0.50	2 3/8	3 5/8	-	-
W10×15	0.54	2 3/8	3 1/4	-	-
W8×13	0.54	2 3/8	3 1/4	-	-
W12×19	0.59	2	3 1/4	4	-
W14×22	0.59	2	3 1/4	4	-
W6×12	0.60	2	3 1/4	4	-
W10×17	0.60	2	2 7/8	4	-
W16×26	0.61	2	2 7/8	4	-
W8×15	0.62	2	2 7/8	4	-
W6×15	0.63	2	2 7/8	4	-
W10×19	0.67	2	2 7/8	3 5/8	-
W8×18	0.67	2	2 7/8	3 5/8	-
W12×22	0.67	2	2 7/8	3 5/8	-
W10×22	0.69	2	2 7/8	3 5/8	-
W12×26	0.70	1 5/8	2 3/8	3 5/8	-
W16×31	0.72	1 5/8	2 3/8	3 5/8	-
W14×30	0.73	1 5/8	2 3/8	3 5/8	-
W18×35	0.74	1 5/8	2 3/8	3 1/4	-

W8×21	0.78	1 5/8	2 3/8	3 1/4	-
W6×16	0.78	1 5/8	2 3/8	3 1/4	-
W16×36	0.79	1 5/8	2	3 1/4	-
W4×13	0.79	1 5/8	2	3 1/4	-
W12×30	0.80	1 5/8	2	3 1/4	-
W5×16	0.80	1 5/8	2	3 1/4	-
W21×44	0.81	1 5/8	2	3 1/4	-
W10×26	0.81	1 5/8	2	3 1/4	-
W14×34	0.82	1 5/8	2	2 7/8	-
W6×20	0.82	1 5/8	2	2 7/8	-
W8×24	0.83	1 1/4	2	2 7/8	-
W18×40	0.84	1 1/4	2	2 7/8	4
W16×40	0.87	1 1/4	2	2 7/8	4
W24×55	0.90	1	1 5/8	2 3/8	4
W14×38	0.91	1	1 5/8	2 3/8	4
W21×50	0.91	1	1 5/8	2 3/8	4
W10×30	0.92	1	1 5/8	2 3/8	4
W5×19	0.93	1	1 5/8	2 3/8	4
W10×33	0.93	1	1 5/8	2 3/8	4
W8x28	0.96	13/16	1 1/4	2	3 5/8
W8x31	0.97	13/16	1 1/4	2	3 5/8
W16x45	0.97	13/16	1 1/4	2	3 5/8
W18x50	0.98	13/16	1 1/4	2	3 5/8
W14x43	0.99	13/16	1 1/4	2	3 5/8
W6x25	1.00	13/16	1 1/4	2	3 5/8
W12x40	1.01	13/16	1 1/4	2	3 5/8
W24x62	1.01	13/16	1 1/4	2	3 5/8

W21x57	1.03	13/16	1 1/4	2	3 5/8
W24x68	1.04	13/16	1 1/4	2	3 5/8
W21x62	1.06	13/16	1 1/4	2	3 5/8
W16x50	1.07	13/16	1 1/4	2	3 5/8
W18x55	1.07	13/16	1 1/4	2	3 5/8
W8x35	1.08	13/16	1 1/4	2	3 5/8
W10x39	1.09	13/16	1 1/4	2	3 5/8
W14x48	1.10	13/16	1 1/4	2	3 5/8
W12x45	1.12	13/16	1 1/4	2	3 5/8
W27x84	1.15	13/16	1 1/4	2	3 1/4
W24x76	1.16	13/16	1 1/4	2	3 1/4
W21x68	1.16	13/16	1 1/4	2	3 1/4
W18x60	1.17	13/16	1 1/4	2	3 1/4
W12x53	1.20	13/16	1 1/4	2	3 1/4
W14x53	1.21	13/16	1 1/4	2	3 1/4
W16x57	1.21	13/16	1 1/4	2	3 1/4
W8x40	1.23	13/16	1 1/4	2	3 1/4
W10x49	1.23	13/16	1 1/4	2	3 1/4
W30x99	1.23	13/16	1 1/4	2	3 1/4
W12x50	1.23	13/16	1 1/4	2	3 1/4
W21x73	1.24	13/16	1 1/4	1 5/8	3 1/4
W10x45	1.24	13/16	1 1/4	1 5/8	3 1/4
W18x65	1.25	13/16	1 1/4	1 5/8	3 1/4
W16x67	1.26	13/16	1 1/4	1 5/8	3 1/4
W24x84	1.27	13/16	1 1/4	1 5/8	3 1/4
W27x94	1.27	13/16	1 1/4	1 5/8	3 1/4
W14x61	1.28	13/16	1 1/4	1 5/8	3 1/4

W18x76	1.30	13/16	1 1/4	1 5/8	3 1/4
W12x58	1.31	13/16	1	1 5/8	2 7/8
W33x118	1.33	13/16	1	1 5/8	2 7/8
W30x108	1.34	13/16	1	1 5/8	2 7/8
W10x54	1.34	13/16	1	1 5/8	2 7/8
W12x65	1.35	13/16	1	1 5/8	2 7/8
W18x71	1.36	13/16	1	1 5/8	2 7/8
W27x102	1.37	13/16	1	1 5/8	2 7/8
W21x83	1.39	13/16	1	1 5/8	2 7/8
W24x94	1.41	13/16	1	1 5/8	2 7/8
W24x104	1.41	13/16	1	1 5/8	2 7/8
W14x68	1.42	13/16	1	1 5/8	2 7/8
W36x135	1.42	13/16	1	1 5/8	2 7/8
W30x116	1.43	13/16	1	1 5/8	2 7/8
W16x77	1.44	13/16	1	1 5/8	2 7/8
W8x48	1.45	13/16	1	1 5/8	2 7/8
W33x130	1.46	13/16	1	1 5/8	2 7/8
W18x86	1.46	13/16	1	1 5/8	2 7/8
W10x60	1.48	13/16	1	1 5/8	2 7/8
W12x72	1.48	13/16	1	1 5/8	2 7/8
W21x101	1.50	13/16	1	1 5/8	2 3/8
W14x74	1.52	13/16	1	1 1/4	2 3/8
W30x124	1.52	13/16	1	1 1/4	2 3/8
W27x114	1.52	13/16	1	1 1/4	2 3/8
W21x93	1.55	13/16	1	1 1/4	2 3/8
W36x150	1.57	13/16	1	1 1/4	2 3/8
W33x141	1.57	13/16	1	1 1/4	2 3/8

W24x117	1.58	13/16	1	1 1/4	2 3/8
W14x90	1.58	13/16	1	1 1/4	2 3/8
W12x79	1.61	13/16	1	1 1/4	2 3/8
W30x132	1.62	13/16	1	1 1/4	2 3/8
W18x97	1.63	13/16	1	1 1/4	2 3/8
W16x89	1.64	13/16	1	1 1/4	2 3/8
W21x111	1.64	13/16	1	1 1/4	2 3/8
W10x68	1.66	13/16	13/16	1	2
W36x160	1.67	13/16	13/16	1	2
W14x82	1.68	13/16	13/16	1	2
W33x152	1.69	13/16	13/16	1	2
W8x58	1.71	13/16	13/16	1	2
W14x99	1.72	13/16	13/16	1	2
W24x131	1.75	13/16	13/16	1	2
W27x146	1.76	13/16	13/16	1	2
W36x170	1.76	13/16	13/16	1	2
W12x87	1.77	13/16	13/16	1	2
W18x106	1.77	13/16	13/16	1	2
W21x122	1.79	13/16	13/16	1	2
W16x100	1.82	13/16	13/16	1	2
W10x77	1.85	13/16	13/16	1	2
W36x182	1.88	13/16	13/16	1	2
W14x109	1.89	13/16	13/16	1	2
W30x173	1.91	13/16	13/16	1	2
W12x96	1.93	13/16	13/16	1	2
W21x132	1.93	13/16	13/16	1	2
W27x161	1.94	13/16	13/16	1	2

W8x67	1.94	13/16	13/16	1	2
W24x146	1.94	13/16	13/16	1	2
W18x119	1.96	13/16	13/16	1	2
W36x194	2.00	13/16	13/16	1	2
W33x201	2.03	13/16	13/16	1	2
W14x120	2.05	13/16	13/16	1	2
W10x88	2.09	13/16	13/16	1	2
W30x191	2.09	13/16	13/16	1	2
W12x106	2.11	13/16	13/16	1	2
W27x178	2.12	13/16	13/16	1	2
W21x147	2.12	13/16	13/16	1	2
W24x162	2.13	13/16	13/16	1	2
W36x210	2.15	13/16	13/16	1	2
W36x230	2.19	13/16	13/16	1	2
W33x221	2.22	13/16	13/16	1	2
W14x132	2.24	13/16	13/16	1	2
W30x211	2.29	13/16	13/16	1	2
W36x245	2.33	13/16	13/16	1	2
W10x100	2.34	13/16	13/16	1	2
W12x120	2.36	13/16	13/16	13/16	1 5/8
W14x145	2.39	13/16	13/16	13/16	1 5/8
W33x241	2.41	13/16	13/16	13/16	1 5/8
W36x260	2.45	13/16	13/16	13/16	1 5/8
W10x112	2.57	13/16	13/16	13/16	1 5/8
W14x159	2.60	13/16	13/16	13/16	1 5/8
W12x136	2.64	13/16	13/16	13/16	1 5/8
W36x280	2.64	13/16	13/16	13/16	1 5/8

W36x300	2.80	13/16	13/16	13/16	1 5/8
W14x176	2.85	13/16	13/16	13/16	1 5/8
W12x152	2.90	13/16	13/16	13/16	1 5/8
W14x193	3.09	13/16	13/16	13/16	1 5/8
W12x170	3.20	13/16	13/16	13/16	1 5/8
W14x211	3.35	13/16	13/16	13/16	1 5/8
W12x190	3.51	13/16	13/16	13/16	1 5/8
W14x233	3.65	13/16	13/16	13/16	1 5/8
W12x210	3.82	13/16	13/16	13/16	1 5/8
W14x257	3.97	13/16	13/16	13/16	1 5/8
W12x230	4.11	13/16	13/16	13/16	1 5/8
W14x283	4.31	13/16	13/16	13/16	1 5/8
W12x252	4.44	13/16	13/16	13/16	1 5/8
W14x311	4.67	13/16	13/16	13/16	1 5/8
W12x279	4.81	13/16	13/16	13/16	1 5/8
W14x342	5.04	13/16	13/16	13/16	1 5/8
W12x305	5.17	13/16	13/16	13/16	1 5/8
W14x370	5.38	13/16	13/16	13/16	1 5/8
W12x336	5.56	13/16	13/16	13/16	1 5/8
W14x398	5.70	13/16	13/16	13/16	1 5/8
W14x426	6.02	13/16	13/16	13/16	1 1/4
W14x455	6.35	13/16	13/16	13/16	1 1/4
W14x500	6.83	13/16	13/16	13/16	1 1/4
W14x550	7.35	13/16	13/16	13/16	1 1/4
W14x605	7.90	13/16	13/16	13/16	1
W14x665	8.46	13/16	13/16	13/16	1
W14x730	9.06	13/16	13/16	13/16	13/16

3. **Noggings** — Min 1-5/8 in. (40 mm) thick, pieces of board (Item 2). Length is cut to friction fit between column flanges. Width of noggings is min. 4 in. (100 mm). Noggings to be placed at end of column, at horizontal butted joints of adjacent mineral and fiber board sections (Item 2) and a maximum of 24 in. (610 mm) OC. For columns with webs deeper than 18 in., use tee-shaped noggings as shown in Figure 1. The backs of the noggings shall be a minimum of 1-5/8 in. (40 mm) thick and extend back to the web or a minimum depth of 4 in. (100 mm).

4. **Fasteners** — Spiral-screw like fixings, with a 0.75 in. (19mm) diameter head, 0.3 in. (7.6 mm) diameter shaft and fabricated from a 0.06 in. (1.5 mm) diameter wire, made in a variety of lengths.

For Web Board attachment to Noggings (Item 3) the boards are fastened to the noggings with a min of 2 fasteners on each side of the joint and at intermediate noggings. Fasteners located nominal 2-1/2 in. (63 mm) from inside of flanges and no more than 8 in. (200 mm) OC. Fasteners to be located nominal 1 in. (25 mm) from board ends. Fastener length shall penetrate completely through the noggings.

For Web Board attachment to Flange Board (Item 2) boards are secured to each other with fasteners spaced a maximum of 6 in. (150 mm) OC. The fasteners are installed on both sides of horizontal joints, nominal 1 in (25 mm) from ends and mid-depth of the adjacent boards. Fastener length is a minimum of twice the board thickness, with a minimum length of 1-5/8 in. (40 mm). For columns with flanges wider than 16 in. (406 mm), flange boards require additional support in the form of 1/8 in. dia. welded steel pins used with 1-1/2 in. dia. non-return washers along the centerline of the flange surface, spaced at a maximum of 2ft. OC (610 mm).

When tee noggings are required, the face nogging shall be secured to the back nogging with a minimum 3-1/8 in. (80 mm) long fasteners, spaced nominally 6 in. (150 mm) OC.

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

Last Updated on 2026-08-05



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](#)

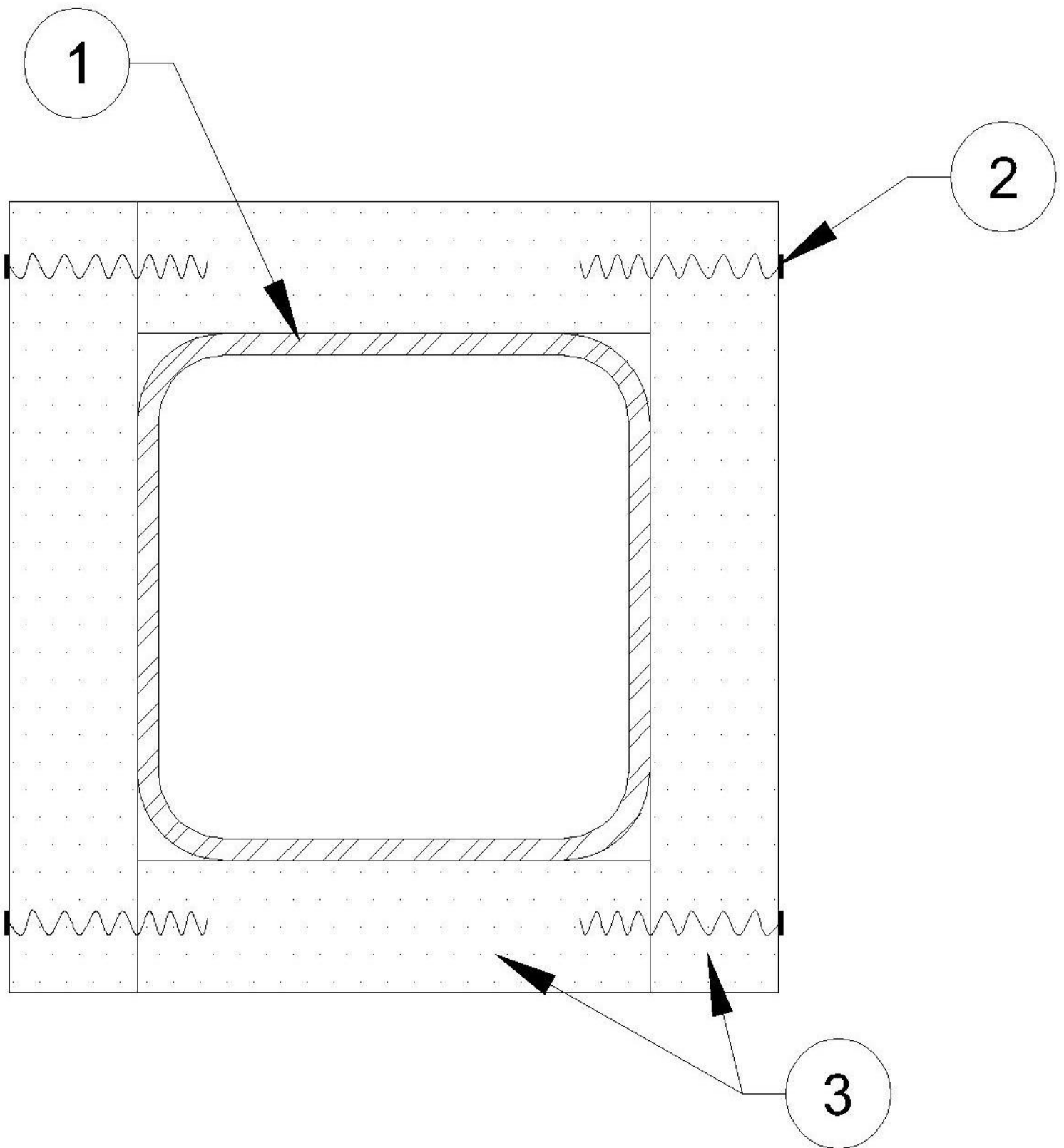
[Design Criteria and Allowable Variances](#)

Design No. X317

September 28, 2026

Rating — 1, 1-1/2, and 2 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 — Rectangular or square tube steel column, min size shown in the table in Item No. 2.

2. Fasteners — Spiral-screw like fixings, with a 0.75 in. (19mm) diameter head, 0.3 in. (7.6 mm) diameter shaft and fabricated from a 0.06 in. (1.5 mm) diameter wire, made in a variety of lengths.

Fasteners spaced a maximum of 6 in. (150 mm) OC. The fasteners are installed on both sides of joints, nominal 1 in (25 mm) from ends and mid-depth of the adjacent boards. Fastener length is a minimum of twice the board thickness, with a minimum length of 1-5/8 in. (40 mm). For columns with faces wider than 16 in. (406 mm), boards require additional support in the form of 1/8 in. dia. welded steel pins used with 1-1/2 in. dia. non-return washers along the centerline of the steel surface, spaced at a maximum of 2 ft. OC (610 mm). Steel pins are not required on faces that are 16 in (406 mm) or less.

3. Mineral and Fiber Boards — Boards cut and attached to columns at the thickness described in the table below. The boards are to be installed on the structural steel tube in a single layer to achieve their respective hourly rating as specified in the table below. Boards placed parallel with the face of the columns are cut to the width of the face. Boards placed parallel with the opposing faces of the columns are cut to the width of the face plus twice the board thickness. Boards are secured to each other with fasteners (see Item 2) installed mid-depth of the adjacent boards.

Min. Required Thickness (mm) for Hourly Rating Period

Size	A/P	1 HR	1-1/2 HR	2 HR
HSS 5 x 3 x 5/16	0.273	25	50	70
HSS 4 x 4 x 5/16	0.273	25	50	70
HSS 6 x 3 x 5/16	0.275	25	50	70
HSS 5 x 4 x 5/16	0.275	25	50	70
HSS 4-1/2 x 4-1/2 x 5/16	0.275	25	50	70
HSS 8 x 2 x 5/16	0.277	25	50	70
HSS 7 x 3 x 5/16	0.277	25	50	70
HSS 6 x 4 x 5/16	0.277	25	50	70
HSS 5 x 5 x 5/16	0.277	25	50	70
HSS 8 x 3 x 5/16	0.278	25	50	70
HSS 7 x 4 x 5/16	0.278	25	50	70
HSS 6 x 5 x 5/16	0.278	25	50	70
HSS 5-1/2 x 5-1/2 x 5/16	0.278	25	50	70
HSS 10 x 2 x 5/16	0.279	25	50	70
HSS 9 x 3 x 5/16	0.279	25	50	70
HSS 8 x 4 x 5/16	0.279	25	50	70
HSS 7 x 5 x 5/16	0.279	25	50	70
HSS 6 x 6 x 5/16	0.279	25	50	70
HSS 10 x 3 x 5/16	0.280	25	50	70
HSS 10 x 4 x 5/16	0.281	25	50	70
HSS 9 x 5 x 5/16	0.281	25	50	70

HSS 8 x 6 x 5/16	0.281	25	50	70
HSS 7 x 7 x 5/16	0.281	25	50	70
HSS 12 x 4 x 5/16	0.282	25	50	70
HSS 12 x 3-1/2 x 5/16	0.282	25	50	70
HSS 12 x 3 x 5/16	0.282	25	50	70
HSS 10 x 6 x 5/16	0.282	25	50	70
HSS 10 x 5 x 5/16	0.282	25	50	70
HSS 9 x 7 x 5/16	0.282	25	50	70
HSS 8 x 8 x 5/16	0.282	25	50	70
HSS 14 x 4 x 5/16	0.283	25	50	70
HSS 12 x 6 x 5/16	0.283	25	50	70
HSS 10 x 8 x 5/16	0.283	25	50	70
HSS 16 x 4 x 5/16	0.284	25	50	70
HSS 14 x 6 x 5/16	0.284	25	50	70
HSS 12 x 8 x 5/16	0.284	25	50	70
HSS 10 x 10 x 5/16	0.284	25	50	70
HSS 20 x 4 x 5/16	0.285	25	50	70
HSS 18 x 6 x 5/16	0.285	25	50	70
HSS 16 x 8 x 5/16	0.285	25	50	70
HSS 14 x 10 x 5/16	0.285	25	50	70
HSS 12 x 12 x 5/16	0.285	25	50	70
HSS 12 x 10 x 5/16	0.285	25	50	70
HSS 20 x 8 x 5/16	0.286	25	40	70
HSS 16 x 12 x 5/16	0.286	25	40	70
HSS 14 x 14 x 5/16	0.286	25	40	70
HSS 20 x 12 x 5/16	0.287	25	40	70
HSS 16 x 16 x 5/16	0.287	25	40	70

HSS 4 x 2 x 3/8	0.314	25	40	60
HSS 3-1/2 x 2-1/2 x 3/8	0.314	25	40	60
HSS 3 x 3 x 3/8	0.314	25	40	60
HSS 5 x 2 x 3/8	0.319	25	40	60
HSS 4 x 3 x 3/8	0.319	25	40	60
HSS 3-1/2 x 3-1/2 x 3/8	0.319	25	40	60
HSS 6 x 2 x 3/8	0.323	25	40	60
HSS 5 x 3 x 3/8	0.323	25	40	60
HSS 4 x 4 x 3/8	0.323	25	40	60
HSS 6 x 3 x 3/8	0.326	25	40	60
HSS 5 x 4 x 3/8	0.326	25	40	60
HSS 4-1/2 x 4-1/2 x 3/8	0.326	25	40	60
HSS 8 x 2 x 3/8	0.329	25	40	60
HSS 7 x 3 x 3/8	0.329	25	40	60
HSS 6 x 4 x 3/8	0.329	25	40	60
HSS 5 x 5 x 3/8	0.329	25	40	60
HSS 8 x 3 x 3/8	0.331	25	40	60
HSS 7 x 4 x 3/8	0.331	25	40	60
HSS 6 x 5 x 3/8	0.331	25	40	60
HSS 5-1/2 x 5-1/2 x 3/8	0.331	25	40	60
HSS 10 x 2 x 3/8	0.332	25	40	60
HSS 9 x 3 x 3/8	0.332	25	40	60
HSS 8 x 4 x 3/8	0.332	25	40	60
HSS 7 x 5 x 3/8	0.332	25	40	60
HSS 6 x 6 x 3/8	0.332	25	40	60
HSS 10 x 3 x 3/8	0.334	25	40	60
HSS 10 x 4 x 3/8	0.335	25	40	60

HSS 9 x 5 x 3/8	0.335	25	40	60
HSS 8 x 6 x 3/8	0.335	25	40	60
HSS 7 x 7 x 3/8	0.335	25	40	60
HSS 12 x 3-1/2 x 3/8	0.336	25	40	60
HSS 10 x 5 x 3/8	0.336	25	40	60
HSS 12 x 4 x 3/8	0.337	25	40	60
HSS 10 x 6 x 3/8	0.337	25	40	60
HSS 9 x 7 x 3/8	0.337	25	40	60
HSS 8 x 8 x 3/8	0.337	25	40	60
HSS 14 x 4 x 3/8	0.338	25	40	60
HSS 12 x 6 x 3/8	0.338	25	40	60
HSS 10 x 8 x 3/8	0.338	25	40	60
HSS 16 x 4 x 3/8	0.339	25	40	60
HSS 14 x 6 x 3/8	0.339	25	40	60
HSS 12 x 8 x 3/8	0.339	25	40	60
HSS 10 x 10 x 3/8	0.339	25	40	60
HSS 12 x 10 x 3/8	0.340	25	40	60
HSS 20 x 4 x 3/8	0.341	25	40	60
HSS 18 x 6 x 3/8	0.341	25	40	60
HSS 16 x 8 x 3/8	0.341	25	40	60
HSS 14 x 12 x 3/8	0.341	25	40	60
HSS 14 x 10 x 3/8	0.341	25	40	60
HSS 12 x 12 x 3/8	0.341	25	40	60
HSS 20 x 8 x 3/8	0.342	25	40	60
HSS 18 x 12 x 3/8	0.342	25	40	60
HSS 16 x 12 x 3/8	0.342	25	40	60
HSS 14 x 14 x 3/8	0.342	25	40	60

HSS 20 x 12 x 3/8	0.343	25	40	60
HSS 16 x 16 x 3/8	0.343	25	40	60
HSS 5 x 3 x 1/2	0.418	20	25	40
HSS 4 x 4 x 1/2	0.418	20	25	40
HSS 6 x 3 x 1/2	0.424	20	25	40
HSS 5 x 4 x 1/2	0.424	20	25	40
HSS 4-1/2 x 4-1/2 x 1/2	0.424	20	25	40
HSS 7 x 3 x 1/2	0.428	20	20	40
HSS 6 x 4 x 1/2	0.428	20	20	40
HSS 5 x 5 x 1/2	0.428	20	20	40
HSS 8 x 3 x 1/2	0.432	20	20	40
HSS 7 x 4 x 1/2	0.432	20	20	40
HSS 9 x 3 x 1/2	0.435	20	20	40
HSS 8 x 4 x 1/2	0.435	20	20	40
HSS 7 x 5 x 1/2	0.435	20	20	40
HSS 6 x 6 x 1/2	0.435	20	20	40
HSS 10 x 4 x 1/2	0.439	20	20	40
HSS 9 x 5 x 1/2	0.439	20	20	40
HSS 8 x 6 x 1/2	0.439	20	20	40
HSS 7 x 7 x 1/2	0.439	20	20	40
HSS 12 x 4 x 1/2	0.443	20	20	40
HSS 10 x 6 x 1/2	0.443	20	20	40
HSS 9 x 7 x 1/2	0.443	20	20	40
HSS 8 x 8 x 1/2	0.443	20	20	40
HSS 14 x 4 x 1/2	0.445	20	20	40
HSS 12 x 6 x 1/2	0.445	20	20	40
HSS 10 x 8 x 1/2	0.445	20	20	40

HSS 16 x 4 x 1/2	0.447	20	20	40
HSS 14 x 6 x 1/2	0.447	20	20	40
HSS 12 x 8 x 1/2	0.447	20	20	40
HSS 10 x 10 x 1/2	0.447	20	20	40
HSS 12 x 10 x 1/2	0.449	20	20	40
HSS 20 x 4 x 1/2	0.450	20	20	40
HSS 18 x 6 x 1/2	0.450	20	20	40
HSS 16 x 8 x 1/2	0.450	20	20	40
HSS 14 x 10 x 1/2	0.450	20	20	40
HSS 12 x 12 x 1/2	0.450	20	20	40
HSS 14 x 12 x 1/2	0.452	20	20	40
HSS 20 x 8 x 1/2	0.453	20	20	40
HSS 18 x 12 x 1/2	0.453	20	20	40
HSS 16 x 12 x 1/2	0.453	20	20	40
HSS 14 x 14 x 1/2	0.453	20	20	40
HSS 20 x 12 x 1/2	0.454	20	20	40
HSS 16 x 16 x 1/2	0.454	20	20	40
HSS 8 x 4 x 5/8	0.533	20	20	30
HSS 7 x 5 x 5/8	0.533	20	20	30
HSS 6 x 6 x 5/8	0.533	20	20	30
HSS 10 x 4 x 5/8	0.540	20	20	30
HSS 9 x 5 x 5/8	0.540	20	20	30
HSS 8 x 6 x 5/8	0.540	20	20	30
HSS 7 x 7 x 5/8	0.540	20	20	30
HSS 12 x 4 x 5/8	0.546	20	20	30
HSS 10 x 6 x 5/8	0.546	20	20	30
HSS 9 x 7 x 5/8	0.546	20	20	30

HSS 8 x 8 x 5/8	0.546	20	20	30
HSS 14 x 4 x 5/8	0.550	20	20	30
HSS 12 x 6 x 5/8	0.550	20	20	30
HSS 14 x 6 x 5/8	0.553	20	20	30
HSS 12 x 8 x 5/8	0.553	20	20	30
HSS 10 x 10 x 5/8	0.553	20	20	30
HSS 18 x 6 x 5/8	0.558	20	20	30
HSS 16 x 8 x 5/8	0.558	20	20	30
HSS 14 x 10 x 5/8	0.558	20	20	30
HSS 12 x 12 x 5/8	0.558	20	20	30
HSS 20 x 8 x 5/8	0.561	20	20	30
HSS 16 x 12 x 5/8	0.561	20	20	30
HSS 14 x 14 x 5/8	0.561	20	20	30
HSS 18 x 12 x 5/8	0.563	20	20	30
HSS 20 x 12 x 5/8	0.564	20	20	30
HSS 16 x 16 x 5/8	0.564	20	20	30
HSS 16 x 16 x 11/16	0.619	20	20	25
HSS 16 x 16 x 3/4	0.672	20	20	20
HSS 30 x 30 x 1	0.907	20	20	20

The thicknesses in the table below are conversions from the metric table above, with rounding up to the nearest 1/8" (20 mm rounded to 13/16").

Min. Required Thickness (in) for Hourly Rating Period

Size	A/P	1 HR	1-1/2 HR	2 HR
HSS 5 x 3 x 5/16	0.273	1	2	2 7/8
HSS 4 x 4 x 5/16	0.273	1	2	2 7/8
HSS 6 x 3 x 5/16	0.275	1	2	2 7/8

HSS 5 x 4 x 5/16	0.275	1	2	2 7/8
HSS 4-1/2 x 4-1/2 x 5/16	0.275	1	2	2 7/8
HSS 8 x 2 x 5/16	0.277	1	2	2 7/8
HSS 7 x 3 x 5/16	0.277	1	2	2 7/8
HSS 6 x 4 x 5/16	0.277	1	2	2 7/8
HSS 5 x 5 x 5/16	0.277	1	2	2 7/8
HSS 8 x 3 x 5/16	0.278	1	2	2 7/8
HSS 7 x 4 x 5/16	0.278	1	2	2 7/8
HSS 6 x 5 x 5/16	0.278	1	2	2 7/8
HSS 5-1/2 x 5-1/2 x 5/16	0.278	1	2	2 7/8
HSS 10 x 2 x 5/16	0.279	1	2	2 7/8
HSS 9 x 3 x 5/16	0.279	1	2	2 7/8
HSS 8 x 4 x 5/16	0.279	1	2	2 7/8
HSS 7 x 5 x 5/16	0.279	1	2	2 7/8
HSS 6 x 6 x 5/16	0.279	1	2	2 7/8
HSS 10 x 3 x 5/16	0.280	1	2	2 7/8
HSS 10 x 4 x 5/16	0.281	1	2	2 7/8
HSS 9 x 5 x 5/16	0.281	1	2	2 7/8
HSS 8 x 6 x 5/16	0.281	1	2	2 7/8
HSS 7 x 7 x 5/16	0.281	1	2	2 7/8
HSS 12 x 4 x 5/16	0.282	1	2	2 7/8
HSS 12 x 3 1/2 x 5/16	0.282	1	2	2 7/8
HSS 12 x 3 x 5/16	0.282	1	2	2 7/8
HSS 10 x 6 x 5/16	0.282	1	2	2 7/8
HSS 10 x 5 x 5/16	0.282	1	2	2 7/8
HSS 9 x 7 x 5/16	0.282	1	2	2 7/8
HSS 8 x 8 x 5/16	0.282	1	2	2 7/8

HSS 14 x 4 x 5/16	0.283	1	2	2 7/8
HSS 12 x 6 x 5/16	0.283	1	2	2 7/8
HSS 10 x 8 x 5/16	0.283	1	2	2 7/8
HSS 16 x 4 x 5/16	0.284	1	2	2 7/8
HSS 14 x 6 x 5/16	0.284	1	2	2 7/8
HSS 12 x 8 x 5/16	0.284	1	2	2 7/8
HSS 10 x 10 x 5/16	0.284	1	2	2 7/8
HSS 20 x 4 x 5/16	0.285	1	2	2 7/8
HSS 18 x 6 x 5/16	0.285	1	2	2 7/8
HSS 16 x 8 x 5/16	0.285	1	2	2 7/8
HSS 14 x 10 x 5/16	0.285	1	2	2 7/8
HSS 12 x 12 x 5/16	0.285	1	2	2 7/8
HSS 12 x 10 x 5/16	0.285	1	2	2 7/8
HSS 20 x 8 x 5/16	0.286	1	1 5/8	2 7/8
HSS 16 x 12 x 5/16	0.286	1	1 5/8	2 7/8
HSS 14 x 14 x 5/16	0.286	1	1 5/8	2 7/8
HSS 20 x 12 x 5/16	0.287	1	1 5/8	2 7/8
HSS 16 x 16 x 5/16	0.287	1	1 5/8	2 7/8
HSS 4 x 2 x 3/8	0.314	1	1 5/8	2 3/8
HSS 3-1/2 x 2-1/2 x 3/8	0.314	1	1 5/8	2 3/8
HSS 3 x 3 x 3/8	0.314	1	1 5/8	2 3/8
HSS 5 x 2 x 3/8	0.319	1	1 5/8	2 3/8
HSS 4 x 3 x 3/8	0.319	1	1 5/8	2 3/8
HSS 3-1/2 x 3-1/2 x 3/8	0.319	1	1 5/8	2 3/8
HSS 6 x 2 x 3/8	0.323	1	1 5/8	2 3/8
HSS 5 x 3 x 3/8	0.323	1	1 5/8	2 3/8
HSS 4 x 4 x 3/8	0.323	1	1 5/8	2 3/8

HSS 6 x 3 x 3/8	0.326	1	1 5/8	2 3/8
HSS 5 x 4 x 3/8	0.326	1	1 5/8	2 3/8
HSS 4-1/2 x 4-1/2 x 3/8	0.326	1	1 5/8	2 3/8
HSS 8 x 2 x 3/8	0.329	1	1 5/8	2 3/8
HSS 7 x 3 x 3/8	0.329	1	1 5/8	2 3/8
HSS 6 x 4 x 3/8	0.329	1	1 5/8	2 3/8
HSS 5 x 5 x 3/8	0.329	1	1 5/8	2 3/8
HSS 8 x 3 x 3/8	0.331	1	1 5/8	2 3/8
HSS 7 x 4 x 3/8	0.331	1	1 5/8	2 3/8
HSS 6 x 5 x 3/8	0.331	1	1 5/8	2 3/8
HSS 5-1/2 x 5-1/2 x 3/8	0.331	1	1 5/8	2 3/8
HSS 10 x 2 x 3/8	0.332	1	1 5/8	2 3/8
HSS 9 x 3 x 3/8	0.332	1	1 5/8	2 3/8
HSS 8 x 4 x 3/8	0.332	1	1 5/8	2 3/8
HSS 7 x 5 x 3/8	0.332	1	1 5/8	2 3/8
HSS 6 x 6 x 3/8	0.332	1	1 5/8	2 3/8
HSS 10 x 3 x 3/8	0.334	1	1 5/8	2 3/8
HSS 10 x 4 x 3/8	0.335	1	1 5/8	2 3/8
HSS 9 x 5 x 3/8	0.335	1	1 5/8	2 3/8
HSS 8 x 6 x 3/8	0.335	1	1 5/8	2 3/8
HSS 7 x 7 x 3/8	0.335	1	1 5/8	2 3/8
HSS 12 x 3-1/2 x 3/8	0.336	1	1 5/8	2 3/8
HSS 10 x 5 x 3/8	0.336	1	1 5/8	2 3/8
HSS 12 x 4 x 3/8	0.337	1	1 5/8	2 3/8
HSS 10 x 6 x 3/8	0.337	1	1 5/8	2 3/8
HSS 9 x 7 x 3/8	0.337	1	1 5/8	2 3/8
HSS 8 x 8 x 3/8	0.337	1	1 5/8	2 3/8

HSS 14 x 4 x 3/8	0.338	1	1 5/8	2 3/8
HSS 12 x 6 x 3/8	0.338	1	1 5/8	2 3/8
HSS 10 x 8 x 3/8	0.338	1	1 5/8	2 3/8
HSS 16 x 4 x 3/8	0.339	1	1 5/8	2 3/8
HSS 14 x 6 x 3/8	0.339	1	1 5/8	2 3/8
HSS 12 x 8 x 3/8	0.339	1	1 5/8	2 3/8
HSS 10 x 10 x 3/8	0.339	1	1 5/8	2 3/8
HSS 12 x 10 x 3/8	0.340	1	1 5/8	2 3/8
HSS 20 x 4 x 3/8	0.341	1	1 5/8	2 3/8
HSS 18 x 6 x 3/8	0.341	1	1 5/8	2 3/8
HSS 16 x 8 x 3/8	0.341	1	1 5/8	2 3/8
HSS 14 x 12 x 3/8	0.341	1	1 5/8	2 3/8
HSS 14 x 10 x 3/8	0.341	1	1 5/8	2 3/8
HSS 12 x 12 x 3/8	0.341	1	1 5/8	2 3/8
HSS 20 x 8 x 3/8	0.342	1	1 5/8	2 3/8
HSS 18 x 12 x 3/8	0.342	1	1 5/8	2 3/8
HSS 16 x 12 x 3/8	0.342	1	1 5/8	2 3/8
HSS 14 x 14 x 3/8	0.342	1	1 5/8	2 3/8
HSS 20 x 12 x 3/8	0.343	1	1 5/8	2 3/8
HSS 16 x 16 x 3/8	0.343	1	1 5/8	2 3/8
HSS 5 x 3 x 1/2	0.418	13/16	1	1 5/8
HSS 4 x 4 x 1/2	0.418	13/16	1	1 5/8
HSS 6 x 3 x 1/2	0.424	13/16	1	1 5/8
HSS 5 x 4 x 1/2	0.424	13/16	1	1 5/8
HSS 4-1/2 x 4-1/2 x 1/2	0.424	13/16	1	1 5/8
HSS 7 x 3 x 1/2	0.428	13/16	13/16	1 5/8
HSS 6 x 4 x 1/2	0.428	13/16	13/16	1 5/8

HSS 5 x 5 x 1/2	0.428	13/16	13/16	1 5/8
HSS 8 x 3 x 1/2	0.432	13/16	13/16	1 5/8
HSS 7 x 4 x 1/2	0.432	13/16	13/16	1 5/8
HSS 9 x 3 x 1/2	0.435	13/16	13/16	1 5/8
HSS 8 x 4 x 1/2	0.435	13/16	13/16	1 5/8
HSS 7 x 5 x 1/2	0.435	13/16	13/16	1 5/8
HSS 6 x 6 x 1/2	0.435	13/16	13/16	1 5/8
HSS 10 x 4 x 1/2	0.439	13/16	13/16	1 5/8
HSS 9 x 5 x 1/2	0.439	13/16	13/16	1 5/8
HSS 8 x 6 x 1/2	0.439	13/16	13/16	1 5/8
HSS 7 x 7 x 1/2	0.439	13/16	13/16	1 5/8
HSS 12 x 4 x 1/2	0.443	13/16	13/16	1 5/8
HSS 10 x 6 x 1/2	0.443	13/16	13/16	1 5/8
HSS 9 x 7 x 1/2	0.443	13/16	13/16	1 5/8
HSS 8 x 8 x 1/2	0.443	13/16	13/16	1 5/8
HSS 14 x 4 x 1/2	0.445	13/16	13/16	1 5/8
HSS 12 x 6 x 1/2	0.445	13/16	13/16	1 5/8
HSS 10 x 8 x 1/2	0.445	13/16	13/16	1 5/8
HSS 16 x 4 x 1/2	0.447	13/16	13/16	1 5/8
HSS 14 x 6 x 1/2	0.447	13/16	13/16	1 5/8
HSS 12 x 8 x 1/2	0.447	13/16	13/16	1 5/8
HSS 10 x 10 x 1/2	0.447	13/16	13/16	1 5/8
HSS 12 x 10 x 1/2	0.449	13/16	13/16	1 5/8
HSS 20 x 4 x 1/2	0.450	13/16	13/16	1 5/8
HSS 18 x 6 x 1/2	0.450	13/16	13/16	1 5/8
HSS 16 x 8 x 1/2	0.450	13/16	13/16	1 5/8
HSS 14 x 10 x 1/2	0.450	13/16	13/16	1 5/8

HSS 12 x 12 x 1/2	0.450	13/16	13/16	1 5/8
HSS 14 x 12 x 1/2	0.452	13/16	13/16	1 5/8
HSS 20 x 8 x 1/2	0.453	13/16	13/16	1 5/8
HSS 18 x 12 x 1/2	0.453	13/16	13/16	1 5/8
HSS 16 x 12 x 1/2	0.453	13/16	13/16	1 5/8
HSS 14 x 14 x 1/2	0.453	13/16	13/16	1 5/8
HSS 20 x 12 x 1/2	0.454	13/16	13/16	1 5/8
HSS 16 x 16 x 1/2	0.454	13/16	13/16	1 5/8
HSS 8 x 4 x 5/8	0.533	13/16	13/16	1 1/4
HSS 7 x 5 x 5/8	0.533	13/16	13/16	1 1/4
HSS 6 x 6 x 5/8	0.533	13/16	13/16	1 1/4
HSS 10 x 4 x 5/8	0.540	13/16	13/16	1 1/4
HSS 9 x 5 x 5/8	0.540	13/16	13/16	1 1/4
HSS 8 x 6 x 5/8	0.540	13/16	13/16	1 1/4
HSS 7 x 7 x 5/8	0.540	13/16	13/16	1 1/4
HSS 12 x 4 x 5/8	0.546	13/16	13/16	1 1/4
HSS 10 x 6 x 5/8	0.546	13/16	13/16	1 1/4
HSS 9 x 7 x 5/8	0.546	13/16	13/16	1 1/4
HSS 8 x 8 x 5/8	0.546	13/16	13/16	1 1/4
HSS 14 x 4 x 5/8	0.550	13/16	13/16	1 1/4
HSS 12 x 6 x 5/8	0.550	13/16	13/16	1 1/4
HSS 14 x 6 x 5/8	0.553	13/16	13/16	1 1/4
HSS 12 x 8 x 5/8	0.553	13/16	13/16	1 1/4
HSS 10 x 10 x 5/8	0.553	13/16	13/16	1 1/4
HSS 18 x 6 x 5/8	0.558	13/16	13/16	1 1/4
HSS 16 x 8 x 5/8	0.558	13/16	13/16	1 1/4
HSS 14 x 10 x 5/8	0.558	13/16	13/16	1 1/4

HSS 12 x 12 x 5/8	0.558	13/16	13/16	1 1/4
HSS 20 x 8 x 5/8	0.561	13/16	13/16	1 1/4
HSS 16 x 12 x 5/8	0.561	13/16	13/16	1 1/4
HSS 14 x 14 x 5/8	0.561	13/16	13/16	1 1/4
HSS 18 x 12 x 5/8	0.563	13/16	13/16	1 1/4
HSS 20 x 12 x 5/8	0.564	13/16	13/16	1 1/4
HSS 16 x 16 x 5/8	0.564	13/16	13/16	1 1/4
HSS 16 x 16 x 11/16	0.619	13/16	13/16	1
HSS 16 x 16 x 3/4	0.672	13/16	13/16	13/16
HSS 30 x 30 x 1	0.907	13/16	13/16	13/16

GCP Applied Technologies — Type MONOKOTE® FIREPROTECT™

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Last Updated on 2026-09-28

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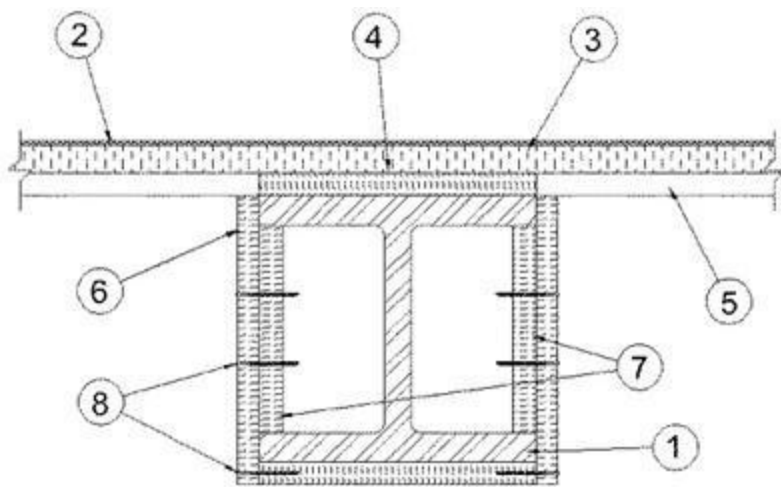
Design No. **S302**

April 3, 2026

**Restrained Beam Ratings — 1 & 1-1/2 Hr (See Item 6)
Unrestrained Beam Ratings — 1 & 1-1/2 Hr (See Item 6)**

**Loading Determined by Allowable Stress Design Method or Load and Resistance
Factor Design Method published by the American Institute of Steel Construction, or in
accordance with the relevant Limit State Design provisions of Part 4 of the National
Building Code of Canada — See Guide [BXUV](#) or [BXUV7](#)**

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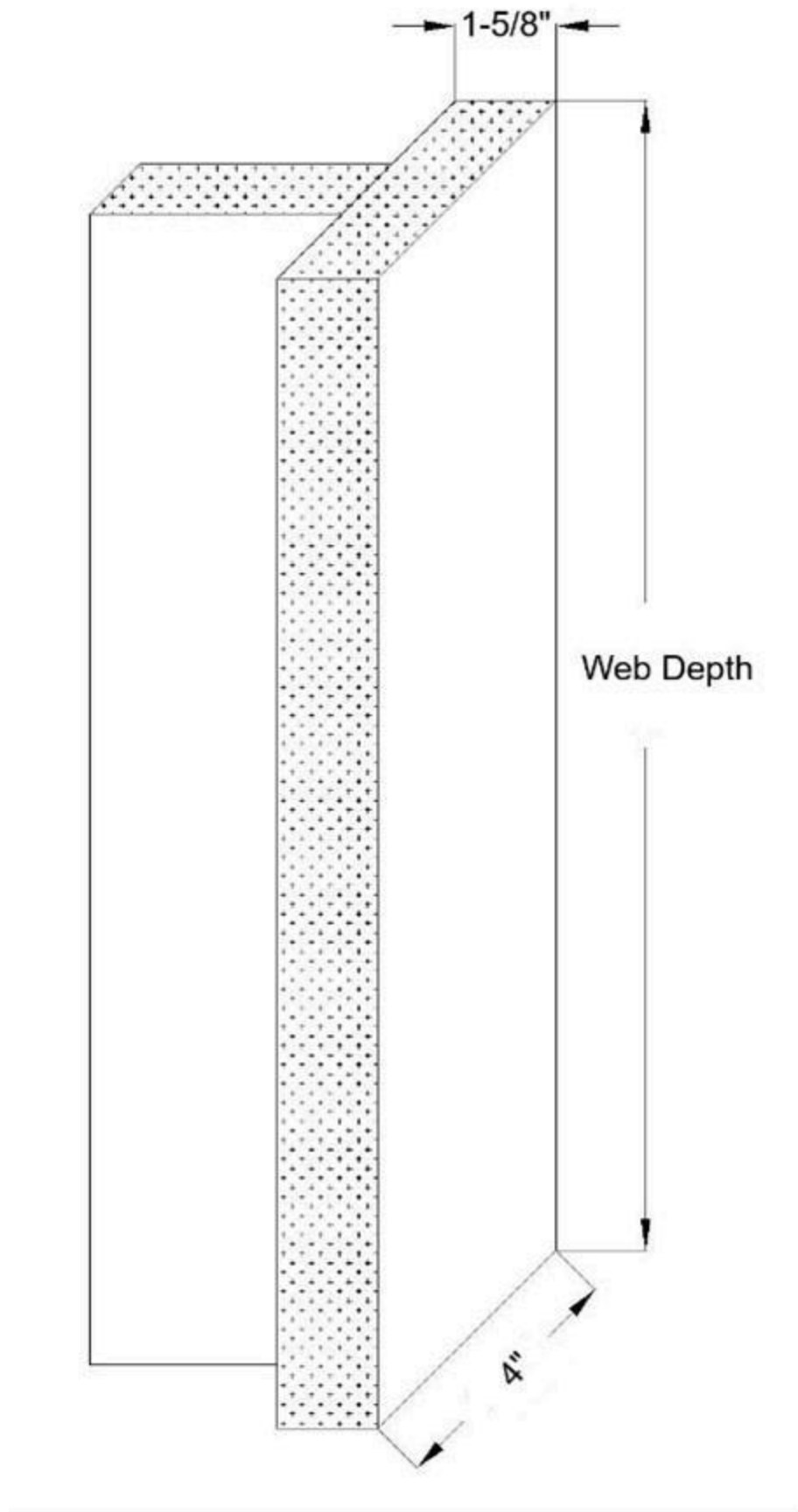


Figure 1: Tee noggings for beam webs deeper than 18"

1. **Steel Beam** — W6x16 or W8x28 minimum size. Maximum allowable yield stress of 50 ksi. Use box configuration shape factor to determine equivalent or larger sizes.
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/100 sq ft. See Adhesives (BYWR) category for names of manufacturers.
5. **Steel Roof Deck*** — (Unclassified) — Fluted, No. 22 MSG, galv 1-1/2 in. deep with 3-1/2 in. wide flutes spaced 6 in. OC. Ends overlapped at supports a min of 1-1/2 in. and welded to supports, 12 in. OC, max. Adjacent units button punched, welded or screwed together along side joints.
6. **Mineral and Fiber Boards*** — Boards cut in various widths to be compatible with the size of beam being protected. Boards placed parallel with the flange of the beams are cut the width of the flange. Boards placed parallel with the web of the beams are cut the width of the beam (web side) plus the board thickness. The voids created by the flutes above the beam and board protection are to be completely filled with mineral wool batts or Forming Materials (XHKU) having a nominal density of 6 lb per cu ft. or greater. Alternately the Mineral and Fiber Boards (Item 6) may be used.

Restrained Beam		Minimum Thickness for Rating (Hours)	
Minimum Size	Boxed W/D	1-Hour	1-1/2 Hour
W8×21	0.96	1 in (25 mm)	2-3/8 in (60 mm)
W6×16	0.96	1 in (25 mm)	2-3/8 in (60 mm)
W12×30	0.97	1 in (25 mm)	2-3/8 in (60 mm)
W14×34	0.98	1 in (25 mm)	2-3/8 in (60 mm)
W10×26	0.99	1 in (25 mm)	2-3/8 in (60 mm)
W24×55	1.01	1 in (25 mm)	2-3/8 in (60 mm)
W16×40	1.03	1 in (25 mm)	2-3/8 in (60 mm)
W21×50	1.04	1 in (25 mm)	2-3/8 in (60 mm)
W4×13	1.05	1 in (25 mm)	2-3/8 in (60 mm)
W5×16	1.07	1 in (25 mm)	2-3/8 in (60 mm)
W8×24	1.07	1 in (25 mm)	2-3/8 in (60 mm)

W14×38	1.09	1 in (25 mm)	2-3/8 in (60 mm)
W18×46	1.09	1 in (25 mm)	2-3/8 in (60 mm)
W6×20	1.09	1 in (25 mm)	2-3/8 in (60 mm)
W12×35	1.11	1 in (25 mm)	2-3/8 in (60 mm)
W10×30	1.12	1 in (25 mm)	2-3/8 in (60 mm)
W24×62	1.14	1 in (25 mm)	2-3/8 in (60 mm)
W16×45	1.15	1 in (25 mm)	2-3/8 in (60 mm)
W18×50	1.15	1 in (25 mm)	2-3/8 in (60 mm)
W21×57	1.17	1 in (25 mm)	2-3/8 in (60 mm)
W10×33	1.20	1 in (25 mm)	2-3/8 in (60 mm)
W14×43	1.21	1 in (25 mm)	2-3/8 in (60 mm)
W24×68	1.21	1 in (25 mm)	2-3/8 in (60 mm)
W8×28	1.23	1 in (25 mm)	1-5/8 in (40 mm)
W21×62	1.24	1 in (25 mm)	1-5/8 in (40 mm)
W5×19	1.24	1 in (25 mm)	1-5/8 in (40 mm)
W12×40	1.26	1 in (25 mm)	1-5/8 in (40 mm)
W16×50	1.26	1 in (25 mm)	1-5/8 in (40 mm)
W18×55	1.26	1 in (25 mm)	1-5/8 in (40 mm)
W8×31	1.29	1 in (25 mm)	1-5/8 in (40 mm)
W27×84	1.32	1 in (25 mm)	1-5/8 in (40 mm)
W6×25	1.33	1 in (25 mm)	1-5/8 in (40 mm)
W24×76	1.34	1 in (25 mm)	1-5/8 in (40 mm)
W14×48	1.35	1 in (25 mm)	1-5/8 in (40 mm)
W21×68	1.35	1 in (25 mm)	1-5/8 in (40 mm)
W18×60	1.36	1 in (25 mm)	1-5/8 in (40 mm)
W12×45	1.39	1 in (25 mm)	1-5/8 in (40 mm)
W10×39	1.40	1 in (25 mm)	1-5/8 in (40 mm)

W30×99	1.42	1 in (25 mm)	1-5/8 in (40 mm)
W16×57	1.43	1 in (25 mm)	1-5/8 in (40 mm)
W21×73	1.44	1 in (25 mm)	1-5/8 in (40 mm)
W8×35	1.44	1 in (25 mm)	1-5/8 in (40 mm)
W18×65	1.46	1 in (25 mm)	1-5/8 in (40 mm)
W24×84	1.47	1 in (25 mm)	1-5/8 in (40 mm)
W27×94	1.47	1 in (25 mm)	1-5/8 in (40 mm)
W14×53	1.48	1 in (25 mm)	1-5/8 in (40 mm)
W33×118	1.53	1 in (25 mm)	1-5/8 in (40 mm)
W12×50	1.54	1 in (25 mm)	1-5/8 in (40 mm)
W30×108	1.54	1 in (25 mm)	1-5/8 in (40 mm)
W12×53	1.55	1 in (25 mm)	1-5/8 in (40 mm)
W16×67	1.57	1 in (25 mm)	1-5/8 in (40 mm)
W18×71	1.59	1 in (25 mm)	1-5/8 in (40 mm)
W27×102	1.59	1 in (25 mm)	1-5/8 in (40 mm)
W10×45	1.60	1 in (25 mm)	1-5/8 in (40 mm)
W18×76	1.60	1 in (25 mm)	1-5/8 in (40 mm)
W14×61	1.61	1 in (25 mm)	1-5/8 in (40 mm)
W21×83	1.62	1 in (25 mm)	1-5/8 in (40 mm)
W36×135	1.62	1 in (25 mm)	1-5/8 in (40 mm)
W10×49	1.63	1 in (25 mm)	1-5/8 in (40 mm)
W24×94	1.63	1 in (25 mm)	1-5/8 in (40 mm)
W8×40	1.63	1 in (25 mm)	1-5/8 in (40 mm)
W30×116	1.65	1 in (25 mm)	1-5/8 in (40 mm)
W33×130	1.67	1 in (25 mm)	1-5/8 in (40 mm)
W12×58	1.69	1 in (25 mm)	1-5/8 in (40 mm)
W24×104	1.70	1 in (25 mm)	1-5/8 in (40 mm)

W30×124	1.75	1 in (25 mm)	1-5/8 in (40 mm)
W27×114	1.76	1 in (25 mm)	1-5/8 in (40 mm)
W16×77	1.78	1 in (25 mm)	1-5/8 in (40 mm)
W24×103	1.78	1 in (25 mm)	1-5/8 in (40 mm)
W10×54	1.79	1 in (25 mm)	1-5/8 in (40 mm)
W14×68	1.79	1 in (25 mm)	1-5/8 in (40 mm)
W36×150	1.79	1 in (25 mm)	1-5/8 in (40 mm)
W12×65	1.80	1 in (25 mm)	1-5/8 in (40 mm)
W18×86	1.80	1 in (25 mm)	1-5/8 in (40 mm)
W21×93	1.80	1 in (25 mm)	1-5/8 in (40 mm)
W33×141	1.81	1 in (25 mm)	1-5/8 in (40 mm)
W21×101	1.83	1 in (25 mm)	1-5/8 in (40 mm)
W30×132	1.86	1 in (25 mm)	1-5/8 in (40 mm)
W36×160	1.90	1 in (25 mm)	1-5/8 in (40 mm)
W24×117	1.91	1 in (25 mm)	1-5/8 in (40 mm)
W8×48	1.91	1 in (25 mm)	1-5/8 in (40 mm)
W14×74	1.92	1 in (25 mm)	1-5/8 in (40 mm)
W33×152	1.93	1 in (25 mm)	1-5/8 in (40 mm)
W10×60	1.97	1 in (25 mm)	1-5/8 in (40 mm)
W12×72	1.97	1 in (25 mm)	1-5/8 in (40 mm)
W18×97	2.01	1 in (25 mm)	1-5/8 in (40 mm)
W21×111	2.01	1 in (25 mm)	1-5/8 in (40 mm)
W36×170	2.01	1 in (25 mm)	1-5/8 in (40 mm)
W16×89	2.02	1 in (25 mm)	1-5/8 in (40 mm)
W14×82	2.12	1 in (25 mm)	1-5/8 in (40 mm)
W14×90	2.12	1 in (25 mm)	1-5/8 in (40 mm)
W24×131	2.12	1 in (25 mm)	1-5/8 in (40 mm)

W27×146	2.12	1 in (25 mm)	1-5/8 in (40 mm)
W12×79	2.14	1 in (25 mm)	1-5/8 in (40 mm)
W36×182	2.15	1 in (25 mm)	1-5/8 in (40 mm)
W18×106	2.18	1 in (25 mm)	1-5/8 in (40 mm)
W21×122	2.19	1 in (25 mm)	1-5/8 in (40 mm)
W10×68	2.20	1 in (25 mm)	1-5/8 in (40 mm)
W16×100	2.25	1 in (25 mm)	1-5/8 in (40 mm)
W8×58	2.26	1 in (25 mm)	1-5/8 in (40 mm)
W30×173	2.28	1 in (25 mm)	1-5/8 in (40 mm)
W36×194	2.28	1 in (25 mm)	1-5/8 in (40 mm)
W40×215	2.29	1 in (25 mm)	1-5/8 in (40 mm)
W14×99	2.30	1 in (25 mm)	1-5/8 in (40 mm)
W27×161	2.33	1 in (25 mm)	1-5/8 in (40 mm)
W24×146	2.34	1 in (25 mm)	1-5/8 in (40 mm)
W12×87	2.35	1 in (25 mm)	1-5/8 in (40 mm)
W21×132	2.36	1 in (25 mm)	1-5/8 in (40 mm)
W18×119	2.41	1 in (25 mm)	1-5/8 in (40 mm)
W33×201	2.42	1 in (25 mm)	1-5/8 in (40 mm)
W10×77	2.45	1 in (25 mm)	1-5/8 in (40 mm)
W36×210	2.45	1 in (25 mm)	1-5/8 in (40 mm)
W30×191	2.50	1 in (25 mm)	1-5/8 in (40 mm)
W14×109	2.52	1 in (25 mm)	1-5/8 in (40 mm)
W12×96	2.55	1 in (25 mm)	1-5/8 in (40 mm)
W27×178	2.55	1 in (25 mm)	1-5/8 in (40 mm)
W8×67	2.55	1 in (25 mm)	1-5/8 in (40 mm)
W24×162	2.57	1 in (25 mm)	1-5/8 in (40 mm)
W21×147	2.59	1 in (25 mm)	1-5/8 in (40 mm)

W36×230	2.60	1 in (25 mm)	1-5/8 in (40 mm)
W33×221	2.64	1 in (25 mm)	1-5/8 in (40 mm)
W30×211	2.74	1 in (25 mm)	1-5/8 in (40 mm)
W14×120	2.75	1 in (25 mm)	1-5/8 in (40 mm)
W10×88	2.76	1 in (25 mm)	1-5/8 in (40 mm)
W36×245	2.76	1 in (25 mm)	1-5/8 in (40 mm)
W12×106	2.79	1 in (25 mm)	1-5/8 in (40 mm)
W33×241	2.86	1 in (25 mm)	1-5/8 in (40 mm)
W36×260	2.91	1 in (25 mm)	1-5/8 in (40 mm)
W14×132	2.99	1 in (25 mm)	1-5/8 in (40 mm)
W10×100	3.08	1 in (25 mm)	1-5/8 in (40 mm)
W12×120	3.12	1 in (25 mm)	1-5/8 in (40 mm)
W36×280	3.13	1 in (25 mm)	1-5/8 in (40 mm)
W14×145	3.22	1 in (25 mm)	1-5/8 in (40 mm)
W36×300	3.33	1 in (25 mm)	1-5/8 in (40 mm)
W10×112	3.37	1 in (25 mm)	1-5/8 in (40 mm)
W12×136	3.47	1 in (25 mm)	1-5/8 in (40 mm)
W14×159	3.49	1 in (25 mm)	1-5/8 in (40 mm)
W12×152	3.81	1 in (25 mm)	1-5/8 in (40 mm)
W14×176	3.82	1 in (25 mm)	1-5/8 in (40 mm)
W14×193	4.13	1 in (25 mm)	1-5/8 in (40 mm)
W12×170	4.19	1 in (25 mm)	1-5/8 in (40 mm)
W14×211	4.47	1 in (25 mm)	1-5/8 in (40 mm)
W12×190	4.58	1 in (25 mm)	1-5/8 in (40 mm)
W14×233	4.86	1 in (25 mm)	1-5/8 in (40 mm)
W12×210	4.98	1 in (25 mm)	1-5/8 in (40 mm)
W14×257	5.27	1 in (25 mm)	1-5/8 in (40 mm)

W12×230	5.34	1 in (25 mm)	1-5/8 in (40 mm)
W14×283	5.72	1 in (25 mm)	1-5/8 in (40 mm)
W12×252	5.75	1 in (25 mm)	1-5/8 in (40 mm)
W14×311	6.17	1 in (25 mm)	1-5/8 in (40 mm)
W12×279	6.21	1 in (25 mm)	1-5/8 in (40 mm)
W14×342	6.65	1 in (25 mm)	1-5/8 in (40 mm)
W12×305	6.66	1 in (25 mm)	1-5/8 in (40 mm)
W14×370	7.07	1 in (25 mm)	1-5/8 in (40 mm)
W12×336	7.15	1 in (25 mm)	1-5/8 in (40 mm)
W14×398	7.48	1 in (25 mm)	1-5/8 in (40 mm)
W14×426	7.87	1 in (25 mm)	1-5/8 in (40 mm)
W14×455	8.30	1 in (25 mm)	1-5/8 in (40 mm)
W14×500	8.90	1 in (25 mm)	1-5/8 in (40 mm)
W14×550	9.55	1 in (25 mm)	1-5/8 in (40 mm)
W14×605	10.20	1 in (25 mm)	1-5/8 in (40 mm)
W14×665	10.90	1 in (25 mm)	1-5/8 in (40 mm)
W14×730	11.60	1 in (25 mm)	1-5/8 in (40 mm)

Unrestrained Beam		Minimum Thickness for Rating (Hours)	
Minimum Size	Boxed W/D	1-Hour	1-1/2 Hour
W8×21	0.96	1 in (25 mm)	2-3/4 in (70 mm)
W6×16	0.96	1 in (25 mm)	2-3/4 in (70 mm)
W12×30	0.97	1 in (25 mm)	2-3/4 in (70 mm)
W14×34	0.98	1 in (25 mm)	2-3/4 in (70 mm)
W10×26	0.99	1 in (25 mm)	2-3/4 in (70 mm)
W24×55	1.01	1 in (25 mm)	2-3/4 in (70 mm)
W16×40	1.03	1 in (25 mm)	2-3/4 in (70 mm)

W21×50	1.04	1 in (25 mm)	2-3/4 in (70 mm)
W4×13	1.05	1 in (25 mm)	2-3/4 in (70 mm)
W5×16	1.07	1 in (25 mm)	2-3/4 in (70 mm)
W8×24	1.07	1 in (25 mm)	2-3/4 in (70 mm)
W14×38	1.09	1 in (25 mm)	2-3/4 in (70 mm)
W18×46	1.09	1 in (25 mm)	2-3/4 in (70 mm)
W6×20	1.09	1 in (25 mm)	2-3/4 in (70 mm)
W12×35	1.11	1 in (25 mm)	2-3/4 in (70 mm)
W10×30	1.12	1 in (25 mm)	2-3/4 in (70 mm)
W24×62	1.14	1 in (25 mm)	2-3/4 in (70 mm)
W16×45	1.15	1 in (25 mm)	2-3/4 in (70 mm)
W18×50	1.15	1 in (25 mm)	2-3/4 in (70 mm)
W21×57	1.17	1 in (25 mm)	2-3/4 in (70 mm)
W10×33	1.20	1 in (25 mm)	2-3/4 in (70 mm)
W14×43	1.21	1 in (25 mm)	2-3/4 in (70 mm)
W24×68	1.21	1 in (25 mm)	2-3/4 in (70 mm)
W8×28	1.23	1 in (25 mm)	2 in (50 mm)
W21×62	1.24	1 in (25 mm)	2 in (50 mm)
W5×19	1.24	1 in (25 mm)	2 in (50 mm)
W12×40	1.26	1 in (25 mm)	2 in (50 mm)
W16×50	1.26	1 in (25 mm)	2 in (50 mm)
W18×55	1.26	1 in (25 mm)	2 in (50 mm)
W8×31	1.29	1 in (25 mm)	2 in (50 mm)
W27×84	1.32	1 in (25 mm)	2 in (50 mm)
W6×25	1.33	1 in (25 mm)	2 in (50 mm)
W24×76	1.34	1 in (25 mm)	2 in (50 mm)
W14×48	1.35	1 in (25 mm)	2 in (50 mm)

W21×68	1.35	1 in (25 mm)	2 in (50 mm)
W18×60	1.36	1 in (25 mm)	2 in (50 mm)
W12×45	1.39	1 in (25 mm)	2 in (50 mm)
W10×39	1.40	1 in (25 mm)	2 in (50 mm)
W30×99	1.42	1 in (25 mm)	2 in (50 mm)
W16×57	1.43	1 in (25 mm)	2 in (50 mm)
W21×73	1.44	1 in (25 mm)	2 in (50 mm)
W8×35	1.44	1 in (25 mm)	2 in (50 mm)
W18×65	1.46	1 in (25 mm)	2 in (50 mm)
W24×84	1.47	1 in (25 mm)	2 in (50 mm)
W27×94	1.47	1 in (25 mm)	2 in (50 mm)
W14×53	1.48	1 in (25 mm)	2 in (50 mm)
W33×118	1.53	1 in (25 mm)	2 in (50 mm)
W12×50	1.54	1 in (25 mm)	2 in (50 mm)
W30×108	1.54	1 in (25 mm)	2 in (50 mm)
W12×53	1.55	1 in (25 mm)	2 in (50 mm)
W16×67	1.57	1 in (25 mm)	2 in (50 mm)
W18×71	1.59	1 in (25 mm)	2 in (50 mm)
W27×102	1.59	1 in (25 mm)	2 in (50 mm)
W10×45	1.60	1 in (25 mm)	2 in (50 mm)
W18×76	1.60	1 in (25 mm)	2 in (50 mm)
W14×61	1.61	1 in (25 mm)	2 in (50 mm)
W21×83	1.62	1 in (25 mm)	2 in (50 mm)
W36×135	1.62	1 in (25 mm)	2 in (50 mm)
W10×49	1.63	1 in (25 mm)	2 in (50 mm)
W24×94	1.63	1 in (25 mm)	2 in (50 mm)
W8×40	1.63	1 in (25 mm)	2 in (50 mm)

W30×116	1.65	1 in (25 mm)	2 in (50 mm)
W33×130	1.67	1 in (25 mm)	2 in (50 mm)
W12×58	1.69	1 in (25 mm)	2 in (50 mm)
W24×104	1.70	1 in (25 mm)	2 in (50 mm)
W30×124	1.75	1 in (25 mm)	2 in (50 mm)
W27×114	1.76	1 in (25 mm)	2 in (50 mm)
W16×77	1.78	1 in (25 mm)	2 in (50 mm)
W24×103	1.78	1 in (25 mm)	2 in (50 mm)
W10×54	1.79	1 in (25 mm)	2 in (50 mm)
W14×68	1.79	1 in (25 mm)	2 in (50 mm)
W36×150	1.79	1 in (25 mm)	2 in (50 mm)
W12×65	1.80	1 in (25 mm)	2 in (50 mm)
W18×86	1.80	1 in (25 mm)	2 in (50 mm)
W21×93	1.80	1 in (25 mm)	2 in (50 mm)
W33×141	1.81	1 in (25 mm)	2 in (50 mm)
W21×101	1.83	1 in (25 mm)	2 in (50 mm)
W30×132	1.86	1 in (25 mm)	2 in (50 mm)
W36×160	1.90	1 in (25 mm)	2 in (50 mm)
W24×117	1.91	1 in (25 mm)	2 in (50 mm)
W8×48	1.91	1 in (25 mm)	2 in (50 mm)
W14×74	1.92	1 in (25 mm)	2 in (50 mm)
W33×152	1.93	1 in (25 mm)	2 in (50 mm)
W10×60	1.97	1 in (25 mm)	2 in (50 mm)
W12×72	1.97	1 in (25 mm)	2 in (50 mm)
W18×97	2.01	1 in (25 mm)	2 in (50 mm)
W21×111	2.01	1 in (25 mm)	2 in (50 mm)
W36×170	2.01	1 in (25 mm)	2 in (50 mm)

W16×89	2.02	1 in (25 mm)	2 in (50 mm)
W14×82	2.12	1 in (25 mm)	2 in (50 mm)
W14×90	2.12	1 in (25 mm)	2 in (50 mm)
W24×131	2.12	1 in (25 mm)	2 in (50 mm)
W27×146	2.12	1 in (25 mm)	2 in (50 mm)
W12×79	2.14	1 in (25 mm)	2 in (50 mm)
W36×182	2.15	1 in (25 mm)	2 in (50 mm)
W18×106	2.18	1 in (25 mm)	2 in (50 mm)
W21×122	2.19	1 in (25 mm)	2 in (50 mm)
W10×68	2.20	1 in (25 mm)	2 in (50 mm)
W16×100	2.25	1 in (25 mm)	2 in (50 mm)
W8×58	2.26	1 in (25 mm)	2 in (50 mm)
W30×173	2.28	1 in (25 mm)	2 in (50 mm)
W36×194	2.28	1 in (25 mm)	2 in (50 mm)
W40×215	2.29	1 in (25 mm)	2 in (50 mm)
W14×99	2.30	1 in (25 mm)	2 in (50 mm)
W27×161	2.33	1 in (25 mm)	2 in (50 mm)
W24×146	2.34	1 in (25 mm)	2 in (50 mm)
W12×87	2.35	1 in (25 mm)	2 in (50 mm)
W21×132	2.36	1 in (25 mm)	2 in (50 mm)
W18×119	2.41	1 in (25 mm)	2 in (50 mm)
W33×201	2.42	1 in (25 mm)	2 in (50 mm)
W10×77	2.45	1 in (25 mm)	2 in (50 mm)
W36×210	2.45	1 in (25 mm)	2 in (50 mm)
W30×191	2.50	1 in (25 mm)	2 in (50 mm)
W14×109	2.52	1 in (25 mm)	2 in (50 mm)
W12×96	2.55	1 in (25 mm)	2 in (50 mm)

W27×178	2.55	1 in (25 mm)	2 in (50 mm)
W8×67	2.55	1 in (25 mm)	2 in (50 mm)
W24×162	2.57	1 in (25 mm)	2 in (50 mm)
W21×147	2.59	1 in (25 mm)	2 in (50 mm)
W36×230	2.60	1 in (25 mm)	2 in (50 mm)
W33×221	2.64	1 in (25 mm)	2 in (50 mm)
W30×211	2.74	1 in (25 mm)	2 in (50 mm)
W14×120	2.75	1 in (25 mm)	2 in (50 mm)
W10×88	2.76	1 in (25 mm)	2 in (50 mm)
W36×245	2.76	1 in (25 mm)	2 in (50 mm)
W12×106	2.79	1 in (25 mm)	2 in (50 mm)
W33×241	2.86	1 in (25 mm)	2 in (50 mm)
W36×260	2.91	1 in (25 mm)	2 in (50 mm)
W14×132	2.99	1 in (25 mm)	2 in (50 mm)
W10×100	3.08	1 in (25 mm)	2 in (50 mm)
W12×120	3.12	1 in (25 mm)	2 in (50 mm)
W36×280	3.13	1 in (25 mm)	2 in (50 mm)
W14×145	3.22	1 in (25 mm)	2 in (50 mm)
W36×300	3.33	1 in (25 mm)	2 in (50 mm)
W10×112	3.37	1 in (25 mm)	2 in (50 mm)
W12×136	3.47	1 in (25 mm)	2 in (50 mm)
W14×159	3.49	1 in (25 mm)	2 in (50 mm)
W12×152	3.81	1 in (25 mm)	2 in (50 mm)
W14×176	3.82	1 in (25 mm)	2 in (50 mm)
W14×193	4.13	1 in (25 mm)	2 in (50 mm)
W12×170	4.19	1 in (25 mm)	2 in (50 mm)
W14×211	4.47	1 in (25 mm)	2 in (50 mm)

W12×190	4.58	1 in (25 mm)	2 in (50 mm)
W14×233	4.86	1 in (25 mm)	2 in (50 mm)
W12×210	4.98	1 in (25 mm)	2 in (50 mm)
W14×257	5.27	1 in (25 mm)	2 in (50 mm)
W12×230	5.34	1 in (25 mm)	2 in (50 mm)
W14×283	5.72	1 in (25 mm)	2 in (50 mm)
W12×252	5.75	1 in (25 mm)	2 in (50 mm)
W14×311	6.17	1 in (25 mm)	2 in (50 mm)
W12×279	6.21	1 in (25 mm)	2 in (50 mm)
W14×342	6.65	1 in (25 mm)	2 in (50 mm)
W12×305	6.66	1 in (25 mm)	2 in (50 mm)
W14×370	7.07	1 in (25 mm)	2 in (50 mm)
W12×336	7.15	1 in (25 mm)	2 in (50 mm)
W14×398	7.48	1 in (25 mm)	2 in (50 mm)
W14×426	7.87	1 in (25 mm)	2 in (50 mm)
W14×455	8.30	1 in (25 mm)	2 in (50 mm)
W14×500	8.90	1 in (25 mm)	2 in (50 mm)
W14×550	9.55	1 in (25 mm)	2 in (50 mm)
W14×605	10.20	1 in (25 mm)	2 in (50 mm)
W14×665	10.90	1 in (25 mm)	2 in (50 mm)
W14×730	11.60	1 in (25 mm)	2 in (50 mm)

GCP APPLIED TECHNOLOGIES INC — Type MONOKOTE® FIREPROTECT™

7. Noggings — Min 1-5/8 in (40 mm) thick pieces of board (Item 6). Length is cut to friction fit between beam flanges. Width of noggings is min. 4 in (100 mm). Noggings to be placed at end of beam and at center of vertical butted joints of adjacent mineral and fiber board sections (Item 6). Noggings spaced at a maximum of 24 in (610 mm) OC. For beams with webs deeper than 18 inches (457 mm), use tee-shaped noggings as shown in Figure 1. The back of the noggings shall be a minimum of 1-5/8 in (40 mm) thick and extend back to the web or a minimum depth of 4 in (100 mm).

8. **Fasteners** — Spiral-screw like fixings, with a 0.75 in (19 mm) diameter head, 0.3 in (7.6 mm) diameter shaft and fabricated from a 0.06 in (1.5 mm) diameter wire, made in a variety of lengths.

For Web Board attachment to Noggings (Item 7): The web boards are fastened to the noggings with a min of 2 fasteners on each side of the joint and at intermediate noggings. Fasteners located nominal 1 in (25 mm) from inside of flanges and no more than 6 in (150 mm) OC. Fasteners to be located nominal 1 in (25 mm) from board ends. Fastener length shall penetrate completely through the noggings.

For Web Board attachment to Bottom Flange Boards (Item 6): The web boards secured to the bottom flange boards using fasteners spaced a max of 6 in (150 mm) OC. The fasteners are installed nominal 1 in (25 mm) from board ends and at mid-thickness of the bottom flange boards. Fastener length is a minimum of twice the board thickness, with a minimum length of 2-3/8 in (60 mm). For beams with flanges wider than 12 inches (300 mm), bottom flange boards require additional support in the form of welded 1/8" dia. steel pins used with 1-1/2" dia. non-return washers along the centerline of the flange surface, spaced at a maximum 2 ft. OC.

When tee noggings are required: The face nogging shall be secured to the back nogging with minimum 3-1/8 in (80 mm) long fasteners, spaced 6 in (150 mm) OC.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2026-04-03

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

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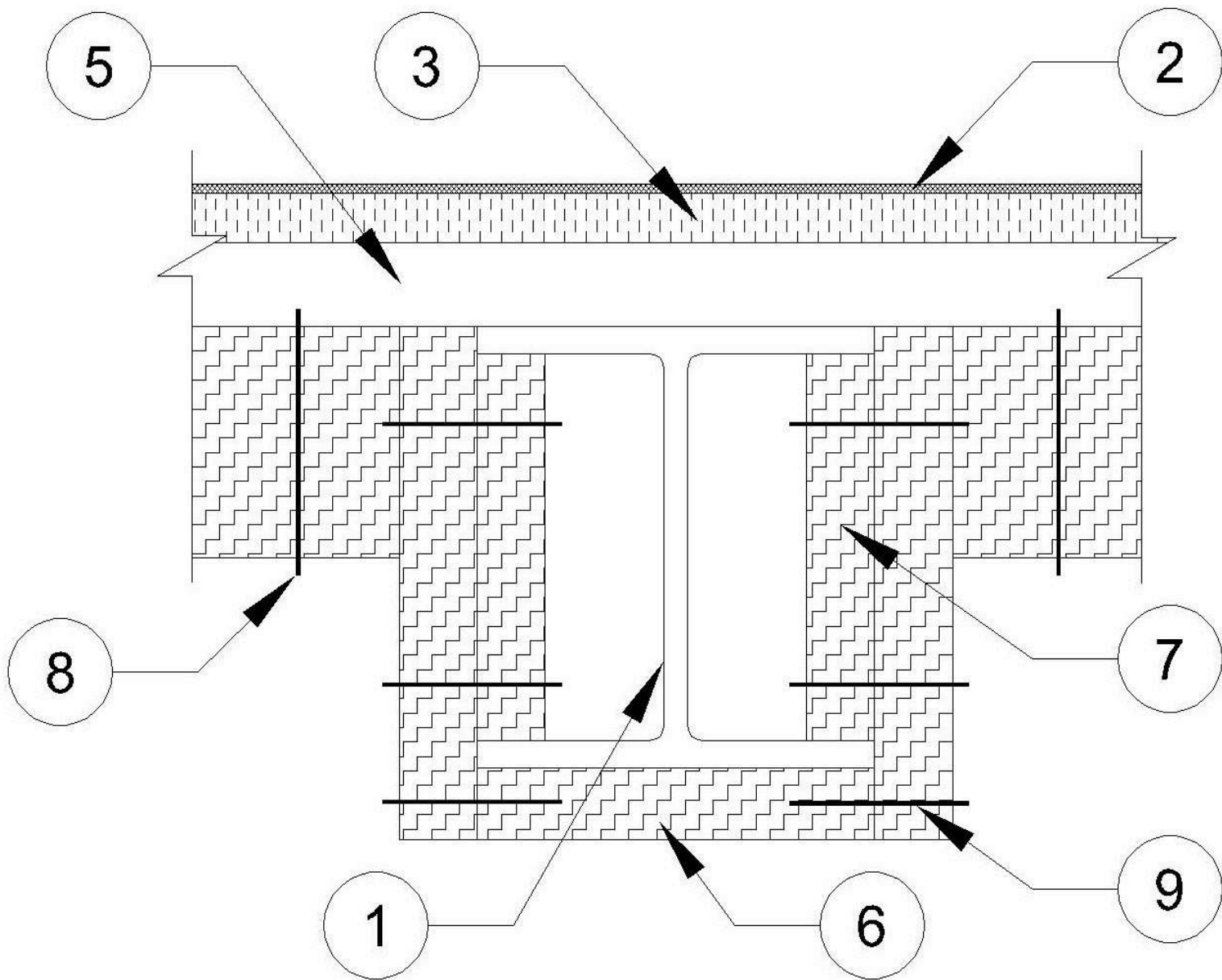
Design No. S303

October 20, 2026

Restrained Beam Ratings — 1, 1-1/2, and 2 Hr (See Item 6)
Unrestrained Beam Ratings — 1, 1-1/2, and 2 Hr (See Item 6)

Loading Determined by Allowable Stress Design Method or Load and Resistance Factor Design Method published by the American Institute of Steel Construction, or in accordance with the relevant Limit State Design provisions of Part 4 of the National Building Code of Canada — See Guide [BXUV](#) or [BXUV7](#)

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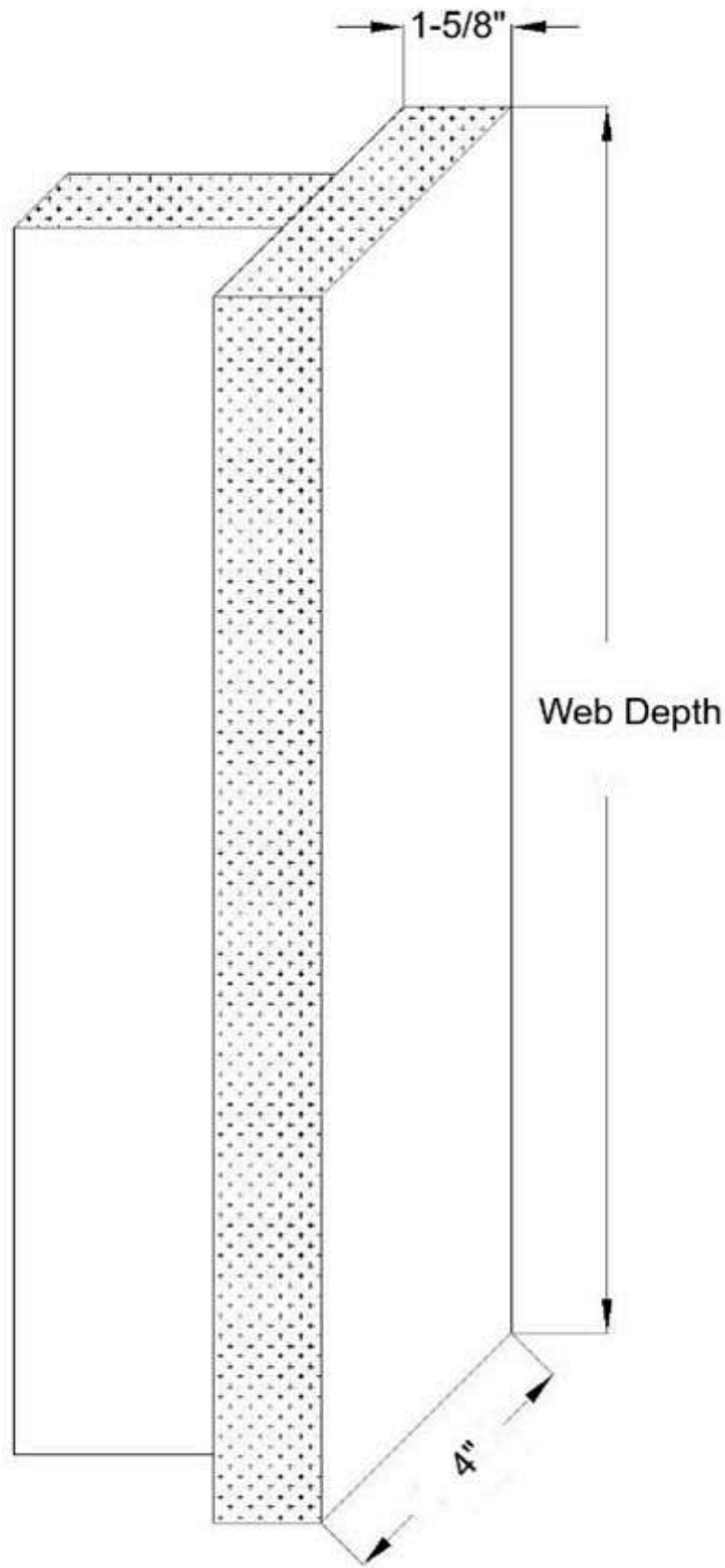


Figure 1: Tee noggings for beam webs deeper than 18"

1. **Steel Beam** — W6x16 minimum size. Maximum allowable yield stress of 50 ksi. Use box configuration shape factor to determine equivalent or larger sizes.

- 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/100 sq ft. See Adhesives (BYWR) category for names of manufacturers.
- 5. Steel Roof Deck*** — (Unclassified) — Fluted, No. 22 MSG, galv 1-1/2 in. deep with 3-1/2 in. wide flutes spaced 6 in. OC. Ends overlapped at supports a min of 1-1/2 in. and welded to supports, 12 in. OC, max. Adjacent units button punched, welded or screwed together along side joints.
- 6. Mineral and Fiber Boards*** — Mineral fiber boards applied in a single layer at the thicknesses shown below.

For beam application, boards cut in various widths to be compatible with the size of beam being protected. Boards placed parallel with the flange of the beams are cut the width of the flange. Boards placed parallel with the web of the beams are cut the width of the beam (web side) plus the board thickness.

For deck application, attached with self-drilling screws and steel washers (Item 8). Board installed parallel to the deck flutes. Side joints to be centered along deck valleys. Side joints may be located along deck crests provided a fastener is applied to each adjacent valley.

Restrained and Unrestrained Beam Rating, Hr	Minimum Thickness for Rating (Hours)	
	Beam W6x16	Deck
1	1 in (25 mm)	2-3/8 in (60 mm)
1-1/2	1-5/8 in (40 mm)	3-5/8 in (90 mm)
2	1-5/8 in (40 mm)	4 in (100 mm)

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- 7. Noggings** — Min 1-5/8 in (40 mm) thick pieces of board (Item 6). Length is cut to friction fit between beam flanges. Width of noggings is min. 4 in (100 mm). Noggings to be placed at end of beam and at center of vertical butted joints of adjacent mineral and fiber board sections (Item 6). Noggings spaced at a maximum of 24 in (610 mm) OC. For beams with webs deeper than 18 inches (457 mm), use tee-shaped noggings as shown in Figure 1. The back of the noggings shall be a minimum of 1-5/8 in (40 mm) thick and extend back to the web or a minimum depth of 4 in (100 mm).
- 8. Fasteners for Deck** — Self-drilling pan head screws, 1/2 to 1 in. (12 to 25 mm) longer than mineral and fiber board thickness applied to the deck, with 1-1/2 in (38 mm) diameter galvanized steel washers. Fasteners to be spaced nominally 6 inches (152 mm) or less from the side joints and nominally 3 inches (76 mm) from the end joints, nominally 6 in (152 mm) OC perpendicular to the deck flutes and nominally 14 in (356 mm) OC along the deck flutes. For board size of 47.2 in x 23.6 in (1200 x 600 mm), 4 rows of 3 fasteners. For board size of 47.2 in x 39.4 in (1200 x 1000 mm), 4 rows of 6 fasteners.
- 9. Fasteners for Beam** — Spiral-screw like fixings, with a 0.75 in (19 mm) diameter head, 0.3 in (7.6 mm) diameter shaft and fabricated from a 0.06 in (1.5 mm) diameter wire, made in a variety of lengths.

For Web Board attachment to Noggings (Item 7): The web boards are fastened to the noggings with a min of 2 fasteners on each side of the joint and at intermediate noggings. Fasteners located nominal 1 in (25 mm) from inside of flanges and no more than 6 in (150 mm) OC. Fasteners to be located nominal 1 in (25 mm) from board ends. Fastener length shall penetrate completely through the noggings.

For Web Board attachment to Bottom Flange Boards (Item 6): The web boards secured to the bottom flange boards using fasteners spaced a max of 6 in (150 mm) OC. The fasteners are installed nominal 1 in (25 mm) from board ends and at mid-thickness of the bottom flange boards. Fastener length is a minimum of twice the board thickness, with a minimum length of 2-3/8 in (60 mm). For beams with flanges wider than 12 inches (300 mm), bottom flange boards require additional support in the form of welded 1/8” dia. steel pins used with 1-1/2” dia. non-return washers along the centerline of the flange surface, spaced at a maximum 2 ft. OC.

When tee noggings are required: The face nogging shall be secured to the back nogging with minimum 3-1/8 in (80 mm) long fasteners, spaced 6 in (150 mm) OC.

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

Last Updated on 2026-10-20

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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](#)
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Design No. **P306**

October 20, 2026

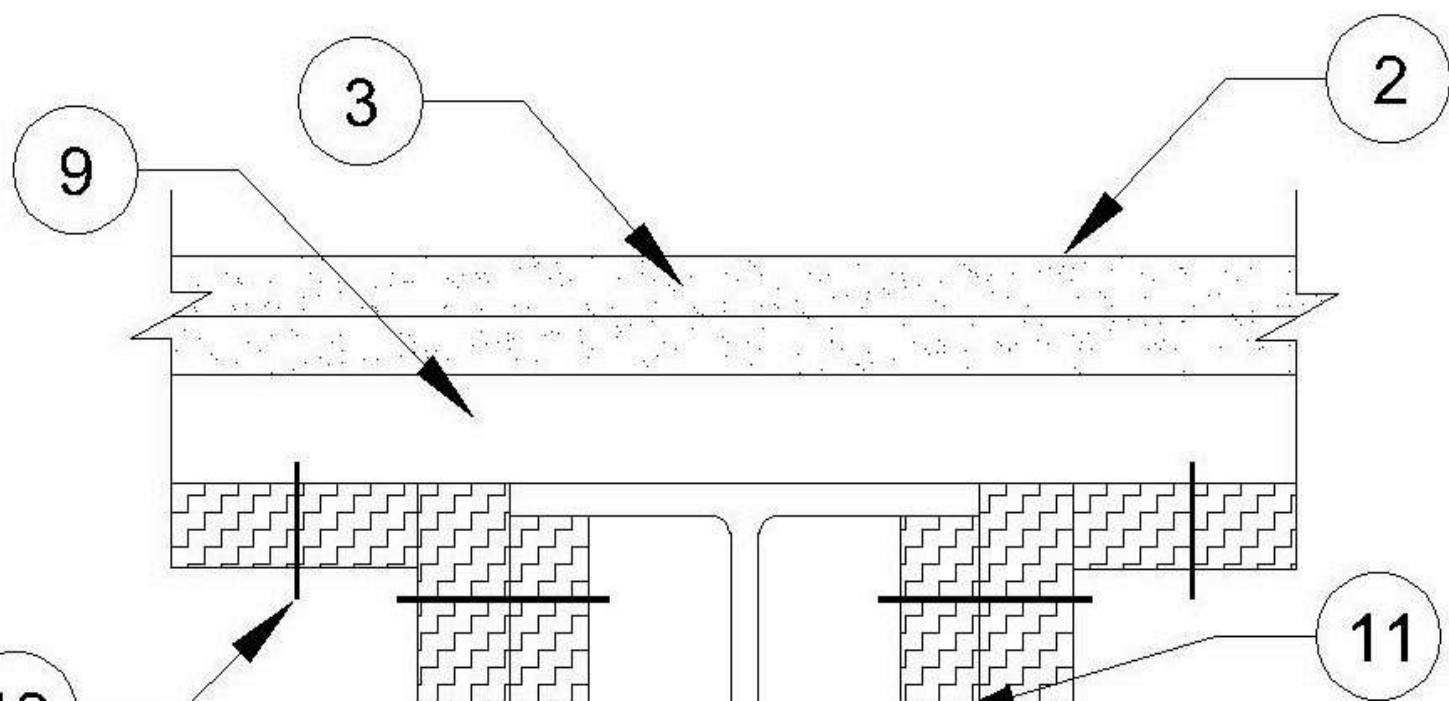
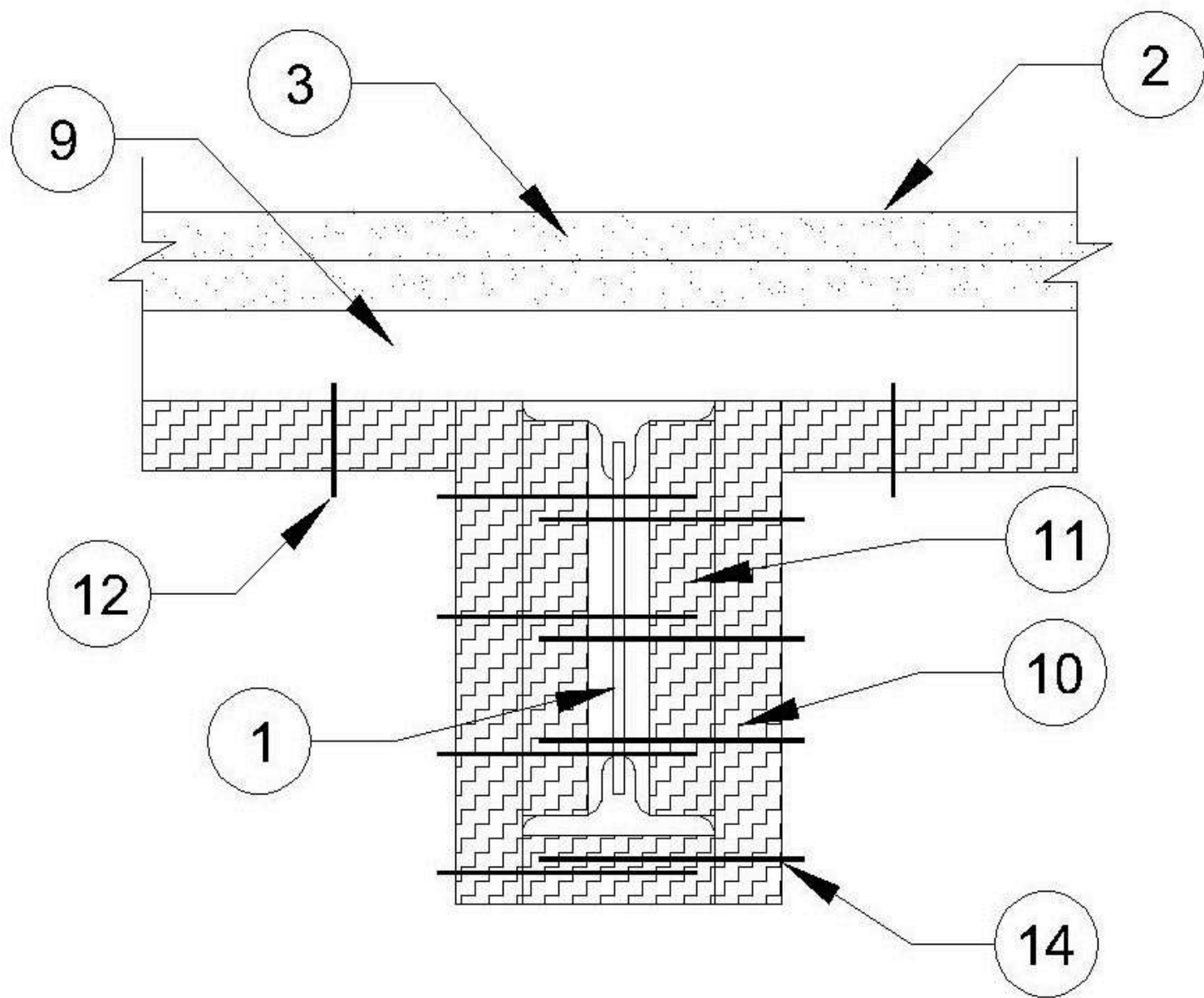
Restrained Assembly Rating — 1, 1-1/2, and 2 Hr (See Item 10)

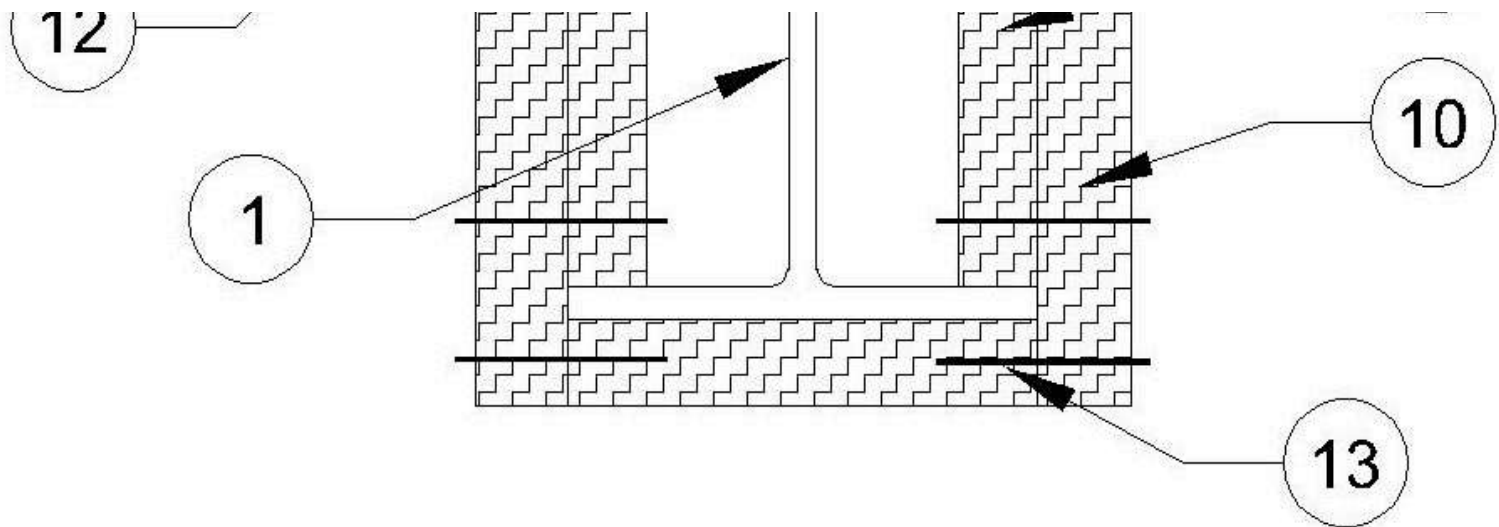
Unrestrained Assembly Rating — 1, 1-1/2, and 2 Hr (See Item 10)

Unrestrained Beam Rating — 1, 1-1/2, and 2 Hr (See Item 10)

Loading Determined by Allowable Stress Design Method or Load and Resistance Factor Design Method published by the American Institute of Steel Construction, or in accordance with the relevant Limit State Design provisions of Part 4 of the National Building Code of Canada — See Guide [BXUV](#) or [BXUV7](#)

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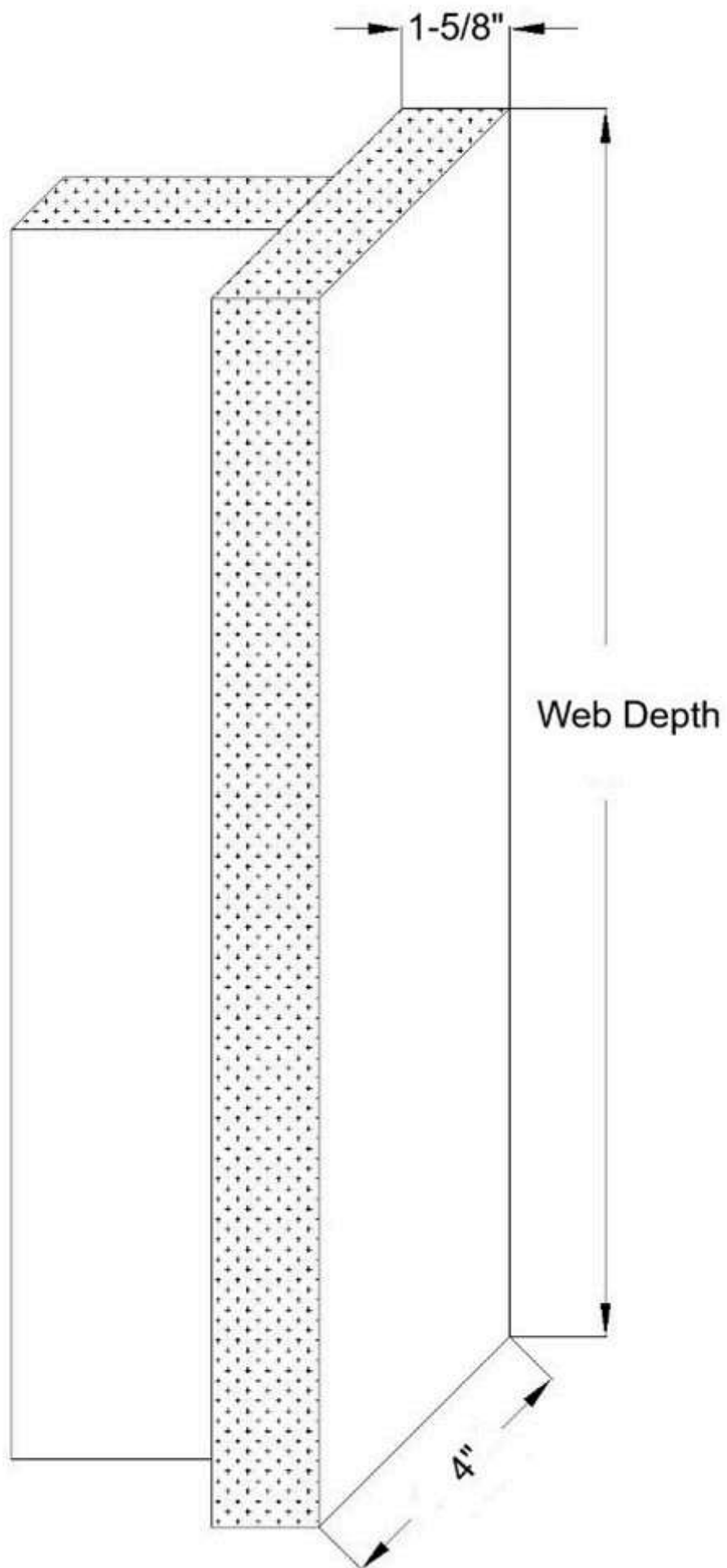


Figure 1: Tee noggings for beam webs deeper than 18"

1. Steel Supports — Min size W6x16 beam, or min size 10K1 steel joists. Maximum allowable yield stress of 50 ksi. For beams, use box configuration shape factor to determine equivalent or larger sizes. Joist constructed with min 1-1/2 x 1-1/2 x 0.122 in. top chord angles, min 9/16 in. round bars for webs and min 1 x 1 x 0.109 in. bottom chord angles. For joists, determine shape factor of individual top chord, web and bottom chord members. Alternate joists shall have members with equivalent or larger shape factors.

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

2A. Roof Covering — (In lieu of Item 2, Not Shown) — Roof covering consisting of single ply **Roofing Membrane*** that is ballasted, adhered, or mechanically attached as permitted under the respective manufacturer's Classification. See **Roofing Membranes** (CHCI).

3. Roof Insulation — Foamed Plastic* — Polyisocyanurate foamed insulation boards, nominal 48 or 96 in., applied in one or multiple layers. Minimum thickness is 2 in. with no limit on maximum overall thickness. Boards to be installed with end joints staggered a minimum of 6 inches in adjacent rows. When applied in more than one layer, each layer to be offset in both directions from layer below a minimum of 6 inches in order to lap all joints.

ATLAS ROOFING CORP — AC Foam II, Tapered AC Foam II, Tapered AC Foam II NH, AC Foam III, AC Foam III NH, Tapered AC Foam III NH, AC Foam IV, AC Foam Supreme, AC Foam Supreme NH, AC Foam Recover Board, AC Foam Recover Board NH, Tapered AC Foam III

Amrize Building Envelope LLC — "ISO 95+ GL", "ISO 95+ FK", "ISO 95+ CAN", "ISO 95+ GL NH", "ISOGARD HD Composite Board", "RESISTA", "ISOGARD GL", "ISOGARD CG", Firestone Iso 95+CAN, Tapered Firestone Iso 95+CAN

BEACON SALES ACQUISITION, INC — TRI-BUILT ISO VT, TRI-BUILT ISO VT 25 PSI, TRI-BUILT ISO VT CGF, TRI-BUILT ISO VT CGF 25 PSI.

CARLISLE SYNTEC SYSTEMS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — Types HP, HP-H, HP-N, HP-W, SecurShield CD, InsulBase NH, SecurShield NH, SecurShield HD Composite NH, Polyiso HP-F NH, InsulBase RL, SecurShield RL, Polyiso HP-F, SecurShield HD Composite RL.

GAF — EnergyGuard™ RA

HUNTER PANELS, A DIVISION OF CARLISLE CONSTRUCTION MATERIALS, LLC — H Shield, H-Shield-F, H-Shield-CG, H-Shield-C, H-Shield Premier, H-Shield HD Composite, H-Shield HD Composite CG, H-Shield RL, H-Shield CG RL, H-Shield HD Composite CG RL, H Shield NH, H-Shield-F NH, H-Shield-CG NH, H-Shield-C NH, H-Shield Premier NH, H-Shield HD Composite CG NH

JOHNS MANVILLE — ENRGY 3 25 psi, ENRGY 3, Tapered ENRGY 3, Tapered ENRGY 3 25 psi, ENRGY 3 AGF, Tapered ENRGY 3 AGF, ENRGY 3 25 psi AGF, Tapered ENRGY 3 25 psi AGF, ENRGY 3 CGF, Tapered ENRGY 3 CGF, ENRGY 3 25 psi CGF, Tapered ENRGY 3 25 psi CGF, ENRGY 3.E, ISO-3, Tapered ISO-3, ValuTherm, Tapered ValuTherm, ValuTherm 25 psi, Tapered ValuTherm 25 psi, ValuTherm AGF, Tapered ValuTherm AGF, ValuTherm 25 psi AGF, Tapered ValuTherm 25 psi AGF, ValuTherm CGF, Tapered ValuTherm CGF, Tapered ValuTherm 25 psi CGF.

KINGSPAN ROOFING & WATERPROOFING LLC — Kingspan ISO GF, Kingspan ISO GF Tapered, Kingspan ISO CG, Kingspan ISO CG Tapered

MARTIN FIREPROOFING CORP — "Perform-A-Deck I"

MULE-HIDE PRODUCTS CO INC — Poly ISO 1, Tapered Poly ISO 1, Poly ISO 1-DWD, Tapered Poly ISO 1-DWD, Poly ISO 1-HD, Poly ISO 1-HD90, Poly ISO 1-HD-Composite, POLY ISO 2, POLY ISO 2 CG, POLY ISO 2 CG Tapered.

POLYGLASS USA INC — Polytherm H, Polytherm CG, Polytherm HD Composite CG

RMAX, A BUSINESS UNIT OF SIKA CORPORATION — Multi-Max-3, Multi-Max FA-3, Ultra-Max, Ultra-Max Plus, Tapered Ultra-Max Plus, Tapered Thermarroof-3, Tapered Thermarroof FA-3, Tapered Ultra-Max.

SIKA SARNAFIL INC — Sarnatherm-R Insulation, Sarnatherm-R CG Insulation, Sarnatherm-R Tapered Insulation, Sarnatherm-R CG Tapered Insulation.

SOPREMA INC — Sopra-ISO s, Sopra-ISO s Tapered, Sopra-ISO+ s, Sopra-ISO+ s Tapered, Sopra-ISO H+ s and Sopra-ISO H+ s Tapered.

VERSICO INC — MP-H, VersiCore, WeatherBond XP Polyiso, Polyiso F, WeatherBond XP-HF, SecurShield, WeatherBond XFP Polyiso, SecurShield CD, WeatherBond XFP CD, SecurShield HD Composite, WeatherBond XFP HD Composite, VersiCore NH, WeatherBond XP NH Polyiso, SecurShield NH, WeatherBond XFP NH Polyiso, VersiCore RL, SecurShield RL, Polyiso F NH, WeatherBond XP-F NH, SecurShield HD Composite RL

4. Gypsum Board —Classified or Unclassified — (Optional - Not Shown) — Supplied in sheets nom 2 by 4 ft to 4 by 12 ft by nom 5/8 in. thick. Min weight 2 lb per sq ft. Applied perpendicular to steel roof deck direction with adhesive or laid loosely. End joints to occur over crests of steel roof deck with end joints staggered 2 ft in adjacent rows. See **Gypsum Board** (CKNX) Category for names of manufacturers.

5. Vapor Retarder - Sheathing Material* — (Optional - Not Shown) —Vinyl film or paper scrim vapor barrier, applied to steel roof deck with adhesive (Item 5), asphalt (Item 6) or laid loosely, overlapped approximately 2 inches on adjacent sheets. See **Sheathing Material** (CHIZ) Category for names of manufacturers.

6. Adhesive* — (Optional - Not Shown) —The vapor retarder or the first layer of roof insulation may be secured with adhesive to the steel crest surfaces. Also used to attach the first layer of insulation to vapor barrier and each additional layer of insulation. Applied in 1/2 in. wide ribbons 6 inches OC at 0.4 gal per 100 sq. ft. See **Adhesive** (GYWR) Category for names of manufacturers.

7. Asphalt or Coal Tar Pitch* — (Optional - Not Shown) —The vapor retarder or the first layer of roof insulation may be secured with asphalt or coal tar pitch to the steel crest surfaces at a maximum rate of 15 lbs per 100 sq. ft. Also used to attach the first layer of insulation to vapor retarder and each additional layer of roof insulation applied at a maximum rate of 25 lbs per 100 sq. ft.

8. Mechanical Fasteners — (Optional - Not Shown) —Mechanical screw-type fastener with metal or plastic washer designed for the purpose may be used to attach one or more layers of insulation to the steel roof deck. Fasteners shall penetrate deck no more than 1/2 in.

9. Steel Roof Deck — (Unclassified) —Minimum 1-1/2 in. deep and 36 in. wide galvanized fluted steel deck. Minimum gauge is No. 22 MSG, Maximum allowable yield stress of 50 ksi. Ends overlapped at supports minimum 4 in. and welded to supports 12 in. OC and at side laps. Side laps fastened with 1/2 long hex head, self-drilling, self-tapping steel screws placed a max of 33 in. OC.

10. Mineral and Fiber Boards* —Mineral fiber boards applied in a single layer at the thicknesses shown below.

For deck application, attached with self-drilling screws and steel washers (Item 12). Board installed parallel to the deck flutes. Side joints to be centered along deck valleys. Side joints may be located along deck crests provided a fastener is applied to each adjacent valley.

For beam application, boards cut in various widths to be compatible with the size of beam being protected. Boards placed parallel with the flange of the beams are cut the width of the flange. Boards placed parallel with the web of the beams are cut the depth of the beam (web side) plus the board thickness.

For joist application, boards cut in various widths to be compatible with the size of member being protected. Boards placed parallel with the bottom chords of the joist are cut the width of the bottom chords or width of the bottom chords plus the noggin protrusion beyond the bottom chords, whichever is greater. Boards placed parallel to the length of the joists are cut the depth of the joist plus the board thickness.

Min. Thickness of Type MONOKOTE® FIREPROTECT™ on Steel Roof Deck

Restrained Assembly Rating	Unrestrained Assembly Rating	Min 2 in. of Roof Insulation	Min 4 in. of Roof Insulation
1	1	2-3/8 in (60 mm)	-
1-1/2	1-1/2	3-5/8 in (90 mm)	-
2	2	-	4 in (100 mm)

Min. Thickness of Type MONOKOTE® FIREPROTECT™ on Steel Member

Restrained Assembly Rating	Unrestrained Assembly and Beam Rating	Min W6 x 16 Steel Beam*	Min 10K1 Steel Joist
1	1	1 in (25 mm)	2-7/8 in (70 mm)
1-1/2	1-1/2	1-5/8 in (40 mm)	4 in (100 mm)
2	2	1-5/8 in (40 mm)	-

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11. Noggings — 1-5/8 in. (40 mm) thick pieces of mineral and fiber board (See Item 10). Cut to 4 in. (100 mm) wide and to length to friction fit between beam flanges or joist angles.

Noggings for Beams: Noggings to be placed at end of beam and at center of vertical butted joints of adjacent mineral and fiber board sections (Item 10). Noggings spaced at a maximum of 24 in (610 mm) OC. For beams with webs deeper than 18 inches (457 mm), use tee-shaped noggings as shown in Figure 1. The back of the noggings shall be a minimum of 1-5/8 in (40 mm) thick and extend back to the web or a minimum depth of 4 in (100 mm).

Noggings for Joist: Noggings to be placed at end of joist and at center of vertical butted joints of adjacent mineral and fiber board sections (Item 10). Noggings spaced at a maximum of 16 in (406 mm) OC and shall be aligned on both faces of the joist.

12. Fasteners for Deck — Self-drilling pan head screws, 1/2 to 1 in. (12 to 25 mm) longer than mineral and fiber board thickness applied to the deck, with 1-1/2 in (38 mm) diameter galvanized steel washers. Fasteners to be spaced nominally 6 inches (152 mm) or less from the side joints and nominally 3 inches (76 mm) from the end joints, nominally 6 in (152 mm) OC perpendicular to the deck flutes and nominally 14 in (356 mm) OC along the deck flutes. For board size of 47.2 in x 23.6 in (1200 x 600 mm), 4 rows of 3 fasteners. For board size of 47.2 in x 39.4 in (1200 x 1000 mm), 4 rows of 6 fasteners.

13. Fasteners for Beam — Spiral-screw like fixings, with a 0.75 in (19 mm) diameter head, 0.3 in (7.6 mm) diameter shaft and fabricated from a 0.06 in (1.5 mm) diameter wire, made in a variety of lengths.

For Web Board attachment to Noggings (Item 11): The web boards are fastened to the noggings with a min of 2 fasteners on each side of the joint and at intermediate noggings. Fasteners located nominal 1 in (25 mm) from inside of flanges and no more than 6 in (150 mm) OC. Fasteners to be located nominal 1 in (25 mm) from board ends. Fastener length shall penetrate completely through the noggings.

For Web Board attachment to Bottom Flange Boards (Item 10): The web boards secured to the bottom flange boards using fasteners spaced a max of 6 in (150 mm) OC. The fasteners are installed nominal 1 in (25 mm) from board ends and at mid-thickness of the bottom flange boards. Fastener length is a minimum of twice the board thickness, with a minimum

length of 2-3/8 in (60 mm). For beams with flanges wider than 12 inches (300 mm), bottom flange boards require additional support in the form of welded 1/8 in. dia. steel pins used with 1-1/2 in. dia. non-return washers along the centerline of the flange surface, spaced at a maximum 2 ft. (610 mm) OC.

When tee noggings are required: The face nogging shall be secured to the back nogging with minimum 3-1/8 in (80 mm) long fasteners, spaced 6 in (150 mm) OC.

14. Fasteners for Joists — Spiral-screw like fixings, with a 0.75 in (19 mm) diameter head, 0.3 in (7.6 mm) diameter shaft and fabricated from a 0.06 in (1.5 mm) diameter wire, made in a variety of lengths.

For Web Board attachment to Noggings (Item 11): The web boards are fastened to the noggings with a min of 3 fasteners on each side of the joint and at intermediate noggings. Fasteners located nominal 2 in (25 mm) from inside of angles with additional fasteners located no more than 3 in (76 mm) OC. Fasteners to be located nominal 1 in (25 mm) from board ends. Fastener length shall penetrate completely through the nogging and shall penetrate the adjacent nogging on the opposite side of the joist. Fastener locations can be adjusted by approximately 1 in (25 mm) to avoid interference with webs or fasteners from opposite face of the joist.

For Web Board attachment to Bottom Chord Boards (Item 10): The web boards shall be secured to the bottom chord boards using fasteners spaced a maximum of 6 in (150 mm) OC. The fasteners are installed nominal 1 in (25 mm) from board ends at mid-thickness of the bottom flange boards. Fastener length is a minimum of twice the board thickness. Fastener locations can be adjusted by approximately 1 in (25 mm) to avoid interference with fasteners from opposite face of the joist.

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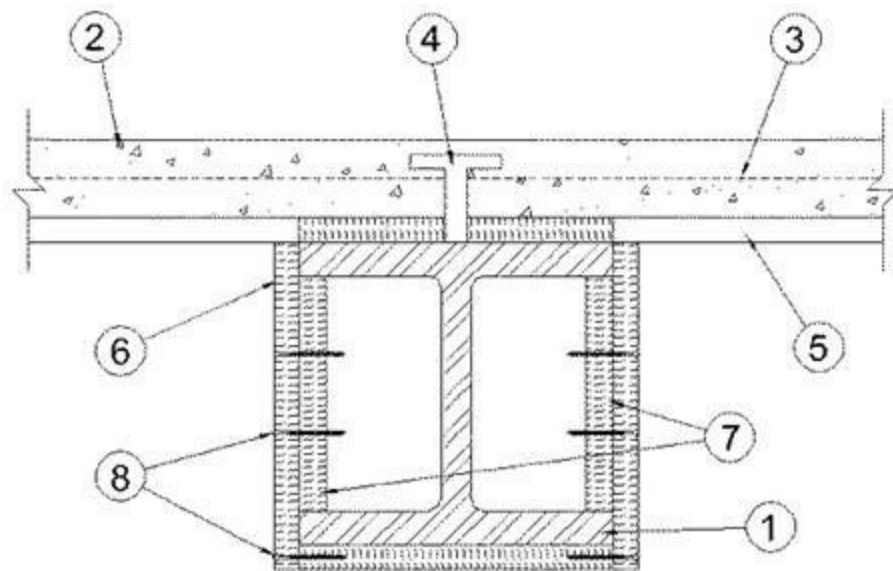
[See General Information for Fire Resistance Ratings – CAN/ULC–S101 Certified for Canada
Design Criteria and Allowable Variances](#)

Design No. **N312**

April 3, 2026

**Restrained Beam Ratings – 1, 1-1/2, & 2 Hr (See Item 6)
Unrestrained Beam Ratings – 1, 1-1/2 & 2 Hr (See Item 6)
Loading Determined by Allowable Stress Design Method or Load and Resistance
Factor Design Method published by the American Institute of Steel Construction, or in
accordance with the relevant Limit State Design provisions of Part 4 of the National
Building Code of Canada – See Guide [BXUV](#) or [BXUV7](#)**

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employing the UL or cUL Certification (such as Canada), respectively.**



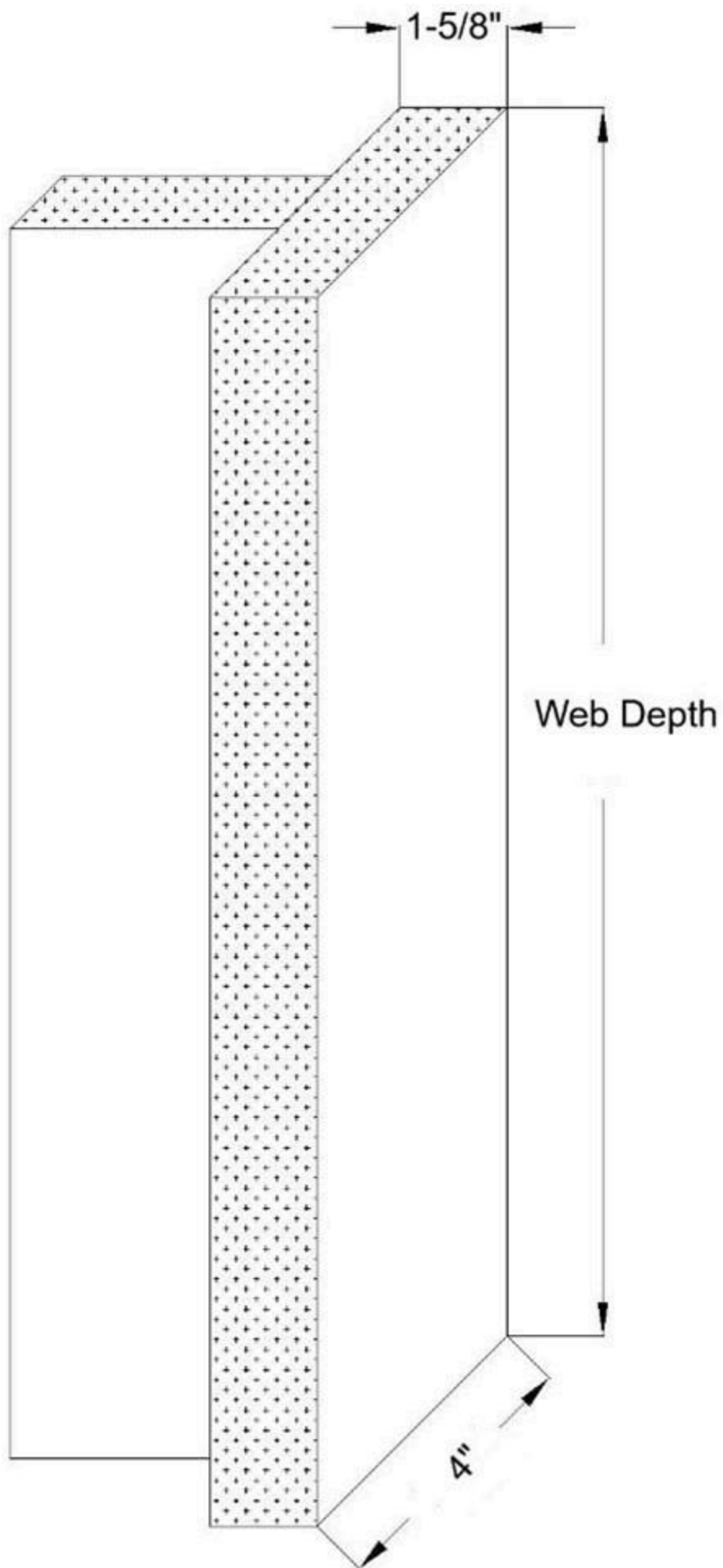


Figure 1: Tee noggings for beam webs deeper than 18"

- 1. Beam** — W6x16 or W8x28 minimum size. Maximum allowable yield stress of 50 ksi. Use box configuration shape factor to determine equivalent or larger sizes.
- 2. Normal Weight or Lightweight Concrete** — Normal weight concrete, carbonate or siliceous aggregate, 147 ± 3 pcf unit weight, 3000 psi compressive strength. Lightweight concrete, expanded shale, clay or slate aggregate by Rotary-Kiln method, 114 ± 3 pcf unit weight, 3000 psi compressive strength, vibrated.
- 3. Welded Wire Fabric** — 6 by 6 in., No. 10/10 SWG.
- 4. Shear Connectors** — (Optional) — Studs, 3/4 in. headed type or equivalent per AISC specification. Welded to top flange of beam through the deck.
- 5. Steel Floor and Form Units*** — Composite or non-composite 1-1/2 in. to 3 in. deep fluted types min No. 22 MSG welded to beam.
- 6. Mineral and Fiber Boards*** — Boards cut in various widths to be compatible with the size of beam being protected. Boards placed parallel with the flange of the beams are cut the width of the flange. Boards placed parallel with the web of the beams are cut the width of the beam (web side) plus the board thickness. The voids created by the flutes above the beam and board protection are to be completely filled with mineral wool batts or Forming Materials (XHCU) having a nominal density of 6 lb per cu ft. or greater. Alternately the Mineral and Fiber Boards (Item 6) may be used.

Restrained Beam		Minimum Thickness for Rating (Hours)		
Minimum Size	Boxed W/D	1-Hour	1-1/2 Hour	2 Hours
W8×21	0.96	1 in (25 mm)	1-5/8 in (40 mm)	NR
W6×16	0.96	1 in (25 mm)	1-5/8 in (40 mm)	NR
W12×30	0.97	1 in (25 mm)	1-5/8 in (40 mm)	NR
W14×34	0.98	1 in (25 mm)	1-5/8 in (40 mm)	NR
W10×26	0.99	1 in (25 mm)	1-5/8 in (40 mm)	NR
W24×55	1.01	1 in (25 mm)	1-5/8 in (40 mm)	NR
W16×40	1.03	1 in (25 mm)	1-5/8 in (40 mm)	NR
W21×50	1.04	1 in (25 mm)	1-5/8 in (40 mm)	NR
W4×13	1.05	1 in (25 mm)	1-5/8 in (40 mm)	NR
W5×16	1.07	1 in (25 mm)	1-5/8 in (40 mm)	NR
W8×24	1.07	1 in (25 mm)	1-5/8 in (40 mm)	NR
W14×38	1.09	1 in (25 mm)	1-5/8 in (40 mm)	NR
W18×46	1.09	1 in (25 mm)	1-5/8 in (40 mm)	NR
W6×20	1.09	1 in (25 mm)	1-5/8 in (40 mm)	NR

W12×35	1.11	1 in (25 mm)	1-5/8 in (40 mm)	NR
W10×30	1.12	1 in (25 mm)	1-5/8 in (40 mm)	NR
W24×62	1.14	1 in (25 mm)	1-5/8 in (40 mm)	NR
W16×45	1.15	1 in (25 mm)	1-5/8 in (40 mm)	NR
W18×50	1.15	1 in (25 mm)	1-5/8 in (40 mm)	NR
W21×57	1.17	1 in (25 mm)	1-5/8 in (40 mm)	NR
W10×33	1.20	1 in (25 mm)	1-5/8 in (40 mm)	NR
W14×43	1.21	1 in (25 mm)	1-5/8 in (40 mm)	NR
W24×68	1.21	1 in (25 mm)	1-5/8 in (40 mm)	NR
W8×28	1.23	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×62	1.24	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W5×19	1.24	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×40	1.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×50	1.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×55	1.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×31	1.29	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×84	1.32	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W6×25	1.33	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×76	1.34	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×48	1.35	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×68	1.35	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×60	1.36	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×45	1.39	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×39	1.40	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×99	1.42	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×57	1.43	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×73	1.44	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W8×35	1.44	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×65	1.46	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×84	1.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×94	1.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×53	1.48	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×118	1.53	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×50	1.54	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×108	1.54	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×53	1.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×67	1.57	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×71	1.59	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×102	1.59	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×45	1.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×76	1.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×61	1.61	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×83	1.62	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×135	1.62	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×49	1.63	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×94	1.63	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×40	1.63	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×116	1.65	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×130	1.67	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×58	1.69	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×104	1.70	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×124	1.75	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×114	1.76	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×77	1.78	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W24×103	1.78	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×54	1.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×68	1.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×150	1.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×65	1.80	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×86	1.80	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×93	1.80	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×141	1.81	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×101	1.83	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×132	1.86	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×160	1.90	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×117	1.91	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×48	1.91	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×74	1.92	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×152	1.93	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×60	1.97	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×72	1.97	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×97	2.01	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×111	2.01	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×170	2.01	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×89	2.02	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×82	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×90	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×131	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×146	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×79	2.14	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×182	2.15	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W18×106	2.18	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×122	2.19	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×68	2.20	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×100	2.25	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×58	2.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×173	2.28	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×194	2.28	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W40×215	2.29	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×99	2.30	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×161	2.33	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×146	2.34	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×87	2.35	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×132	2.36	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×119	2.41	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×201	2.42	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×77	2.45	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×210	2.45	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×191	2.50	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×109	2.52	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×96	2.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×178	2.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×67	2.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×162	2.57	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×147	2.59	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×230	2.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×221	2.64	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×211	2.74	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W14×120	2.75	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×88	2.76	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×245	2.76	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×106	2.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×241	2.86	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×260	2.91	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×132	2.99	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×100	3.08	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×120	3.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×280	3.13	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×145	3.22	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×300	3.33	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×112	3.37	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×136	3.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×159	3.49	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×152	3.81	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×176	3.82	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×193	4.13	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×170	4.19	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×211	4.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×190	4.58	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×233	4.86	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×210	4.98	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×257	5.27	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×230	5.34	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×283	5.72	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×252	5.75	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W14×311	6.17	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×279	6.21	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×342	6.65	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×305	6.66	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×370	7.07	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×336	7.15	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×398	7.48	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×426	7.87	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×455	8.30	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×500	8.90	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×550	9.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×605	10.20	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×665	10.90	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×730	11.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

Unrestrained Beam		Minimum Thickness for Rating (Hours)		
Minimum Size	Boxed W/D	1-Hour	1-1/2 Hour	2 Hours
W8×21	0.96	1 in (25 mm)	1-5/8 in (40 mm)	NR
W6×16	0.96	1 in (25 mm)	1-5/8 in (40 mm)	NR
W12×30	0.97	1 in (25 mm)	1-5/8 in (40 mm)	NR
W14×34	0.98	1 in (25 mm)	1-5/8 in (40 mm)	NR
W10×26	0.99	1 in (25 mm)	1-5/8 in (40 mm)	NR
W24×55	1.01	1 in (25 mm)	1-5/8 in (40 mm)	NR
W16×40	1.03	1 in (25 mm)	1-5/8 in (40 mm)	NR
W21×50	1.04	1 in (25 mm)	1-5/8 in (40 mm)	NR
W4×13	1.05	1 in (25 mm)	1-5/8 in (40 mm)	NR

W5×16	1.07	1 in (25 mm)	1-5/8 in (40 mm)	NR
W8×24	1.07	1 in (25 mm)	1-5/8 in (40 mm)	NR
W14×38	1.09	1 in (25 mm)	1-5/8 in (40 mm)	NR
W18×46	1.09	1 in (25 mm)	1-5/8 in (40 mm)	NR
W6×20	1.09	1 in (25 mm)	1-5/8 in (40 mm)	NR
W12×35	1.11	1 in (25 mm)	1-5/8 in (40 mm)	NR
W10×30	1.12	1 in (25 mm)	1-5/8 in (40 mm)	NR
W24×62	1.14	1 in (25 mm)	1-5/8 in (40 mm)	NR
W16×45	1.15	1 in (25 mm)	1-5/8 in (40 mm)	NR
W18×50	1.15	1 in (25 mm)	1-5/8 in (40 mm)	NR
W21×57	1.17	1 in (25 mm)	1-5/8 in (40 mm)	NR
W10×33	1.20	1 in (25 mm)	1-5/8 in (40 mm)	NR
W14×43	1.21	1 in (25 mm)	1-5/8 in (40 mm)	NR
W24×68	1.21	1 in (25 mm)	1-5/8 in (40 mm)	NR
W8×28	1.23	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×62	1.24	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W5×19	1.24	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×40	1.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×50	1.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×55	1.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×31	1.29	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×84	1.32	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W6×25	1.33	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×76	1.34	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×48	1.35	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×68	1.35	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×60	1.36	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W12×45	1.39	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×39	1.40	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×99	1.42	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×57	1.43	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×73	1.44	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×35	1.44	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×65	1.46	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×84	1.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×94	1.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×53	1.48	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×118	1.53	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×50	1.54	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×108	1.54	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×53	1.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×67	1.57	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×71	1.59	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×102	1.59	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×45	1.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×76	1.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×61	1.61	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×83	1.62	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×135	1.62	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×49	1.63	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×94	1.63	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×40	1.63	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×116	1.65	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×130	1.67	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W12×58	1.69	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×104	1.70	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×124	1.75	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×114	1.76	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×77	1.78	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×103	1.78	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×54	1.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×68	1.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×150	1.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×65	1.80	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×86	1.80	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×93	1.80	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×141	1.81	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×101	1.83	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×132	1.86	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×160	1.90	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×117	1.91	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×48	1.91	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×74	1.92	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×152	1.93	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×60	1.97	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×72	1.97	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×97	2.01	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×111	2.01	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×170	2.01	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×89	2.02	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×82	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W14×90	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×131	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×146	2.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×79	2.14	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×182	2.15	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×106	2.18	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×122	2.19	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×68	2.20	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W16×100	2.25	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×58	2.26	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×173	2.28	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×194	2.28	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W40×215	2.29	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×99	2.30	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×161	2.33	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W24×146	2.34	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×87	2.35	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×132	2.36	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W18×119	2.41	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×201	2.42	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×77	2.45	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×210	2.45	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×191	2.50	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×109	2.52	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×96	2.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W27×178	2.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W8×67	2.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W24×162	2.57	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W21×147	2.59	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×230	2.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×221	2.64	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W30×211	2.74	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×120	2.75	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×88	2.76	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×245	2.76	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×106	2.79	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W33×241	2.86	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×260	2.91	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×132	2.99	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×100	3.08	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×120	3.12	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×280	3.13	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×145	3.22	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W36×300	3.33	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W10×112	3.37	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×136	3.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×159	3.49	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×152	3.81	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×176	3.82	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×193	4.13	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×170	4.19	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×211	4.47	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×190	4.58	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×233	4.86	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

W12×210	4.98	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×257	5.27	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×230	5.34	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×283	5.72	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×252	5.75	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×311	6.17	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×279	6.21	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×342	6.65	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×305	6.66	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×370	7.07	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W12×336	7.15	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×398	7.48	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×426	7.87	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×455	8.30	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×500	8.90	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×550	9.55	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×605	10.20	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×665	10.90	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)
W14×730	11.60	1 in (25 mm)	1-5/8 in (40 mm)	2 in (50 mm)

GCP APPLIED TECHNOLOGIES — Type MONOKOTE® FIREPROTECT™

7. Noggings — Min 1-5/8 in (40 mm) thick, pieces of board (Item 6). Length is cut to friction fit between beam flanges. Width of noggings is min. 4 in (100 mm). Noggings to be placed at end of beam, and at center of vertical butted joints of adjacent mineral and fiber board sections (Item 6). Noggings spaced at a maximum of 24 in (610 mm) OC. For beams with webs deeper than 18 inches (457 mm), use tee-shaped noggings as shown in Figure 1. The back of the noggings shall be a minimum of 1-5/8 in (40 mm) thick and extend back to the web or a minimum depth of 4 in (100 mm).

8. Fasteners — Spiral-screw like fixings, with a 0.75 in (19 mm) diameter head, 0.3 in (7.6 mm) diameter shaft and fabricated from a 0.06 in (1.5 mm) diameter wire, made in a variety of lengths.

For Web Board attachment to Noggings (Item 7): The web boards are fastened to the noggings with a min of 2 fasteners on each side of the joint and at intermediate noggings. Fasteners located nominal 1 in (25 mm) from inside of flanges and no more than 6 in (150 mm) OC. Fasteners to be located nominal 1 in (25 mm) from board ends. Fastener length shall penetrate completely through the noggings.

For Web Board attachment to Bottom Flange Boards (Item 6): The web boards secured to the bottom flange boards using fasteners spaced a max of 6 in (150 mm) OC. The fasteners are installed nominal 1 in (25 mm) from board ends and at mid-thickness of the bottom flange boards. Fastener length is a minimum of twice the board thickness, with a minimum length of 2-3/8 in (60 mm). For beams with flanges wider than 12 inches (300 mm), bottom flange boards require additional support in the form of welded 1/8" dia. steel pins used with 1-1/2" dia. non-return washers along the centerline of the flange surface, spaced at a maximum 2 ft. OC.

When tee noggings are required, the face nogging shall be secured to the back nogging with minimum 3-1/8 in (80 mm) long fasteners, spaced 6 in (150 mm) OC.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**
Last Updated on 2026-04-03

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL Solutions' Follow - Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL Solutions' Follow - Up Service. Always look for the Mark on the product.

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1. Identification

Product identifier Monokote FireProtect

Other means of identification None.

Recommended use Intended for thermal, acoustic and fireproof insulation.

Recommended restrictions No other uses are advised.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name GCP

Address 20 Moores Rd.
Malvern, PA 19355
United States

Telephone +1 866-333-3726

Website www.gcpat.com

E-mail Not available.

Emergency phone number 3E Global Incident Hotline
1 760 476 3962
1 866 519 4752 (Toll Free)
Access Code: 336250

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement This product is considered an article and does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response If exposed or concerned: Get medical advice/attention.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information The product, in the form supplied, is not anticipated to produce significant adverse human or environmental health effects. Processing at high temperature or grinding may release dust/fumes which may be irritating to the eyes, skin, and respiratory systems.

3. Composition/information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	% (w/w)
Insulation containing non-biopersistent (biosoluble) glass fibers		N/A	≤ 100
Formaldehyde (Trace)		50-00-0	< 0.1

Composition comments

Product contains binder with trace level of formaldehyde.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash clothing separately before reuse.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth with water to remove dust or fibers and drink plenty of water to help reduce irritation. If symptoms persist, call a physician.
Most important symptoms/effects, acute and delayed	Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product and cannot occur unless there is direct contact. Abrasion effects should subside after cessation of exposure.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Avoid inhalation of dust.
Methods and materials for containment and cleaning up	Pick up mechanically; Send for recovery or disposal in suitable receptacles.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid dust formation. Avoid breathing dust. Avoid contact with eyes. Avoid contact with skin.
Conditions for safe storage, including any incompatibilities	Store flat, in a dry, well ventilated place away from sources of excessive heat.

8. Exposure controls/personal protection**Occupational exposure limits**

As a member of the North American Insulation Manufacturers Association (NAIMA), CertainTeed subscribes to the NAIMA Product Stewardship Program (NPSP). Under the NPSP, CertainTeed recommends that exposures be limited to the NAIMA-OSHA voluntary Permissible Exposure Limit (vPEL) of 1 f/cc TWA. The NPSP also includes work practice and respiratory protection recommendations for exposures over the vPEL. For more information, see NAIMA's Health and Safety Reference Library (website: <http://insulationinstitute.org/tools-resources/resource-library/health-safety/>) to find the Product Stewardship Program Pocket Folder (N052) and other Fact Sheets. The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	STEL	0.3 ppm
	TWA	0.1 ppm

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	IDLH	7 % (w/w)
		20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	Ceiling	0.1 ppm
	TWA	0.016 ppm

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin protection	
Hand protection	Protective gloves.
Other	Normal work clothing (long sleeved shirts and long pants) is recommended.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract
Thermal hazards	Not applicable.
General hygiene considerations	Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly.

9. Physical and chemical properties**Appearance**

Physical state	Solid.
Form	Board.
Colour	Tan
Odour	Odourless.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%)	Not available.
Explosive limit – upper (%)	Not available.

Vapour pressure	Not available.
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Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition products	Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

11. Toxicological information

Information on likely routes of exposure

Inhalation	No adverse effects due to inhalation are expected.
Skin contact	May be irritating to the skin.
Eye contact	Direct contact with eyes may cause temporary irritation.
Ingestion	Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation.
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Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Formaldehyde (Trace) (CAS 50-00-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	270 mg/kg
Inhalation		
LC50	Rat	0.48 mg/l, 4 Hours
Oral		
LD50	Rat	100 mg/kg

Skin corrosion/irritation	Prolonged skin contact may cause temporary irritation.
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Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
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Respiratory or skin sensitisation

ACGIH sensitisation

Formaldehyde (CAS 50-00-0)

Dermal sensitisation
Respiratory sensitisation

Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	This product is not expected to cause skin sensitisation.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Reference to chemical component(s) listed are based on unbound respirable particles and are not generally applicable to product as supplied.

IARC Monographs. Overall Evaluation of Carcinogenicity

Formaldehyde (Trace) (CAS 50-00-0) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Formaldehyde (Trace) (CAS 50-00-0) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Formaldehyde (Trace) (CAS 50-00-0) Known To Be Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal considerations

Dispose of contents/container in accordance with the local/regional/national/international regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Toxic Substances Control Act (TSCA) One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Formaldehyde (Trace) (CAS 50-00-0) 100 lbs

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Formaldehyde (Trace)	50-00-0	100	500		

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Formaldehyde (Trace) (CAS 50-00-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Formaldehyde (Trace) (CAS 50-00-0)

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.

US state regulations**California Proposition 65**

WARNING: This product can expose you to Formaldehyde (Trace), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

California Proposition 65 - CRT: Listed date/Carcinogenic substance

Formaldehyde (Trace) (CAS 50-00-0)

Listed: January 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 12-January-2026

Version No. 01

Disclaimer GCP cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

1. Identification

Product identifier Monokote FireProtect Noggins

Other means of identification

Synonyms Cut up board pieces

Recommended use For use with the Monokote FireProtect system.

Recommended restrictions No other uses are advised.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name GCP

Address 20 Moores Rd.
Malvern, PA 19355
United States

Telephone +1 866-333-3726

Website www.gcpat.com

E-mail Not available.

Emergency phone number 3E Global Incident Hotline
1 760 476 3962
1 866 519 4752 (Toll Free)
Access Code: 336250

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Not classified.

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Hazard symbol None.

Signal word None.

Hazard statement This product is considered an article and does not meet the criteria for classification.

Precautionary statement

Prevention Observe good industrial hygiene practices.

Response If exposed or concerned: Get medical advice/attention.

Storage Store away from incompatible materials.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information The product, in the form supplied, is not anticipated to produce significant adverse human or environmental health effects. Processing at high temperature or grinding may release dust/fumes which may be irritating to the eyes, skin, and respiratory systems.

3. Composition/information on ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	% (w/w)
Insulation containing non-biopersistent (biosoluble) glass fibers		N/A	≤ 100

Chemical name	Common name and synonyms	CAS number	% (w/w)
Formaldehyde (Trace)		50-00-0	< 0.1

Composition comments Product contains binder with trace level of formaldehyde.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash clothing separately before reuse.
Eye contact	Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth with water to remove dust or fibers and drink plenty of water to help reduce irritation. If symptoms persist, call a physician.
Most important symptoms/effects, acute and delayed	Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product and cannot occur unless there is direct contact. Abrasion effects should subside after cessation of exposure.
Indication of immediate medical attention and special treatment needed	Treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Use fire-extinguishing media appropriate for surrounding materials.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Avoid inhalation of dust.
Methods and materials for containment and cleaning up	Pick up mechanically; Send for recovery or disposal in suitable receptacles.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling	Avoid dust formation. Avoid breathing dust. Avoid contact with eyes. Avoid contact with skin.
Conditions for safe storage, including any incompatibilities	Store flat, in a dry, well ventilated place away from sources of excessive heat.

8. Exposure controls/personal protection

Occupational exposure limits

As a member of the North American Insulation Manufacturers Association (NAIMA), CertainTeed subscribes to the NAIMA Product Stewardship Program (NPSP). Under the NPSP, CertainTeed recommends that exposures be limited to the NAIMA-OSHA voluntary Permissible Exposure Limit (vPEL) of 1 f/cc TWA. The NPSP also includes work practice and respiratory protection recommendations for exposures over the vPEL. For more information, see NAIMA's Health and Safety Reference Library (website: <http://insulationinstitute.org/tools-resources/resource-library/health-safety/>) to find the Product Stewardship Program Pocket Folder (N052) and other Fact Sheets. The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	STEL	2 ppm
	TWA	0.75 ppm

US. ACGIH Threshold Limit Values (TLV)

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	STEL	0.3 ppm
	TWA	0.1 ppm

NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	IDLH	7 % (w/w)
		20 ppm

US. NIOSH: Pocket Guide to Chemical Hazards Recommended Exposure Limits (REL)

Components	Type	Value
Formaldehyde (Trace) (CAS 50-00-0)	Ceiling	0.1 ppm
	TWA	0.016 ppm

Biological limit values No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection Protective gloves.

Other Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment. Inhalation of dusts produced during cutting, grinding or sanding of this product may cause irritation of the respiratory tract

Thermal hazards Not applicable.

General hygiene considerations Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly.

9. Physical and chemical properties**Appearance**

Physical state Solid.

Form Cut up board.

Colour Tan

Odour Odourless.

Odour threshold Not available.

pH Not available.

Melting point/freezing point Not available.

Initial boiling point and boiling range Not available.

Flash point Not available.

Evaporation rate Not available.

Flammability (solid, gas) Not available.

Upper/lower flammability or explosive limits

Explosive limit - lower (%) Not available.

Explosive limit – upper (%) Not available.

Vapour pressure Not available.

Vapour density Not available.

Relative density Not available.

Solubility(ies)

Solubility (water) Insoluble.

Partition coefficient (n-octanol/water) Not available.

Auto-ignition temperature Not available.

Decomposition temperature Not available.

Viscosity Not available.

Other information

Explosive properties Not explosive.

Oxidising properties Not oxidising.

10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Contact with incompatible materials.

Incompatible materials Strong oxidising agents.

Hazardous decomposition products Irritating and/or toxic fumes and gases may be emitted upon the product's decomposition.

11. Toxicological information

Information on likely routes of exposure

Inhalation No adverse effects due to inhalation are expected.

Skin contact May be irritating to the skin.

Eye contact Direct contact with eyes may cause temporary irritation.

Ingestion Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects**Acute toxicity**

Components	Species	Test Results
Formaldehyde (Trace) (CAS 50-00-0)		
<u>Acute</u>		
Dermal		
LD50	Rabbit	270 mg/kg
Inhalation		
LC50	Rat	0.48 mg/l, 4 Hours
Oral		
LD50	Rat	100 mg/kg

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irritation.
Respiratory or skin sensitisation	
ACGIH sensitisation	
Formaldehyde (CAS 50-00-0)	Dermal sensitisation Respiratory sensitisation
Respiratory sensitisation	Due to partial or complete lack of data the classification is not possible.
Skin sensitisation	This product is not expected to cause skin sensitisation.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Reference to chemical component(s) listed are based on unbound respirable particles and are not generally applicable to product as supplied.

IARC Monographs. Overall Evaluation of Carcinogenicity

Formaldehyde (Trace) (CAS 50-00-0) 1 Carcinogenic to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Formaldehyde (Trace) (CAS 50-00-0) Cancer

US. National Toxicology Program (NTP) Report on Carcinogens

Formaldehyde (Trace) (CAS 50-00-0) Known To Be Human Carcinogen.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	Not an aspiration hazard.

12. Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

13. Disposal considerations

Dispose of contents/container in accordance with the local/regional/national/international regulations.

14. Transport information

DOT

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations	This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Toxic Substances Control Act (TSCA)	One or more components of the mixture are not on the TSCA 8(b) inventory or are designated "inactive".
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	
Not regulated.	
CERCLA Hazardous Substance List (40 CFR 302.4)	
Not listed.	
SARA 304 Emergency release notification	
Formaldehyde (Trace) (CAS 50-00-0)	100 lbs

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Chemical name	CAS number	Reportable quantity (pounds)	Threshold planning quantity (pounds)	Threshold planning quantity, lower value (pounds)	Threshold planning quantity, upper value (pounds)
Formaldehyde (Trace)	50-00-0	100	500		

SARA 311/312 Hazardous chemical No**SARA 313 (TRI reporting)**

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Formaldehyde (Trace) (CAS 50-00-0)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Formaldehyde (Trace) (CAS 50-00-0)

Safe Drinking Water Act (SDWA) Contains component(s) regulated under the Safe Drinking Water Act.**US state regulations****California Proposition 65****WARNING:** This product can expose you to Formaldehyde (Trace), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.**California Proposition 65 - CRT: Listed date/Carcinogenic substance**

Formaldehyde (Trace) (CAS 50-00-0)

Listed: January 1, 1988

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Industrial Chemicals (AICIS)	No
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	18-February-2026
Version No.	01

Disclaimer

GCP cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.