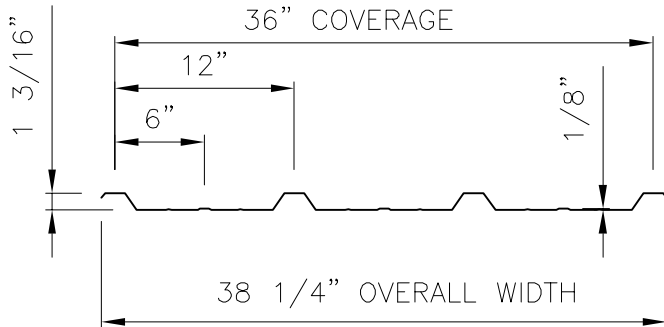
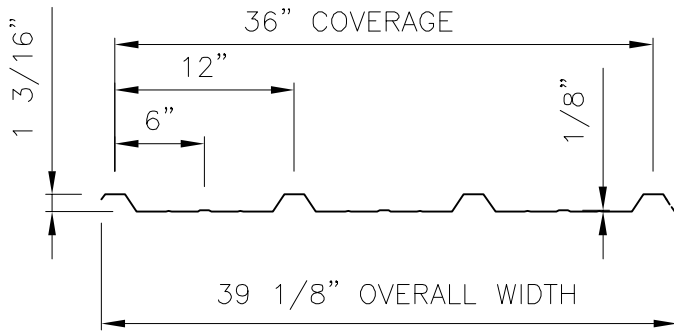


Multi-Rib and Multi-Rib PB Panel

Product Data



MULTI-RIB PROFILE - WALLS
(Non-Purlin Bearing Leg)



MULTI-RIB PROFILE - ROOFS
(Purlin Bearing Leg)

NOTE:
All data represented on this sheet may not be applicable to all widths and gauges. Please contact McElroy Metal for more information.

Applications

Exposed fastener wall/roof panel used on slopes down to 1:12. Tape sealant is required on seam (side-laps). Standard panel lengths up to 40'. Please inquire for longer lengths.

Substrates

Plywood or Purlins.

Material

Standard - 26 GA. ASTM A792 (50 or 80 ksi steel) *roof & wall panels*
AZ55 - Bare, AZ50 - Painted
Optional - 22 GA. & 24 GA. ASTM A792 (50 ksi steel) *wall panels*
AZ55 - Bare, AZ50 - Painted

Manufacturing

Roll formed in factory.

Finishes

Acrylic Coated Galvalume®
Fluoropolymer (Kynar 500® PVDF resin-based)
Siliconized Polyester and Polyester

Pan Conditions

Oil canning is inherent in all metal panels and is not cause for panel rejection.

Testing *

Uplift: UL 580 Class 90, ASTM E1592
Air & Water Infiltration: E1646 and E1680
Impact Testing: UL 2218 Class 4
Fire Resistance: UL 263 & UL 790 Class A
Florida Product Approval: FL 1832.10 (non-structural roofing)
FL 1747.8 (structural roofing)
Texas Windstorm: RC-63 & RC-283
Testing and Approvals are product specific. Please inquire for details.



FASTENER PATTERN
(@ Eaves, Ridges & Endlaps)



FASTENER PATTERN
(@ Intermediate Purlins)



FOAM INSIDE CLOSURE



FOAM OUTSIDE CLOSURE

TECHNICAL BULLETIN

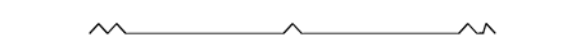
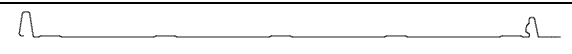

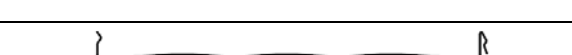
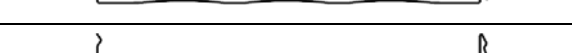
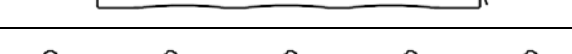

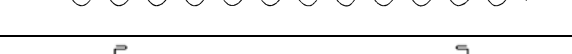

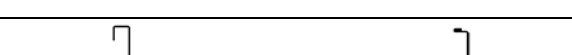
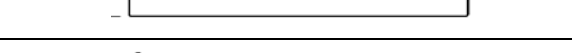

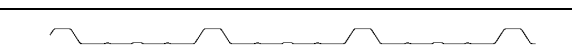


Issue Date : June 1, 2006

Revised: August 17, 2020

No. 04-268-06

Texas Department of Insurance Approval

The following roofing products have been evaluated by the Texas Department of Insurance for being in compliance with the *International Residential Code* (IRC) and the *International Building Code* (IBC).

Panel Name	Minimum Gauge	Product Evaluation Number	Panel Profile
5V-Crimp	26	RC-13	
Meridian	26	RC-34	
Multi-Rib	26	RC-63	
ABC Instaloc	24	RC-86	
ABC InstaLoc	26	RC-93	
MaxRib	29	RC-157	
Multi-Cor	26	RC-158	
ABC 238T	24	RC-270	
ABC JSM 200 DL	24	RC-271	
ABC Permaseam	24	RC-272	
MultiRib	26	RC-283	
PBR-Panel	26	RC-284	
Met Tile	26	RC-425	
Milan	29	RC-463	
Medallion-Lok	24	RC-573	

For additional information and verification please visit <http://www.tdi.state.tx.us/wind> .

MANUFACTURING LOCATIONS

ADELANTO, CA ASHBURN, GA BOSSIER CITY, LA CLINTON, IL DIAMOND, MO HOUSTON, TX LEWISPORT, KY
 MARSHALL, MI MAUSTON, WI MERKEL, TX PEACHTREE CITY, GA SUNNYVALE, TX WINCHESTER, VA



TECHNICAL BULLETIN

Issue Date : June 1, 2006

Revised: August 1, 2017

No. 04-267-06

Tests for Impact Resistance of Roof Covering Materials

UL 2218

Impact Resistance Class 4

Class 4 formed coated Steel Panels designated Type Coated steel panels (surfacing) identified as “Multi-Rib”, “Master-Lok”, “R”, “Medallion-Lok”, “Medallion”, “Medallion I Batten”, “Medallion II Batten”, “Meridian”, “5V-Crimp”, “Mega-Rib”, “Maxima 1.5”, “Maxima 212”, “Maxima 216”, “Maxima 218”, “Maxima 318”, “Maxima 324”, “Metalogic-2000”, “Mirage”, “M-Cor”, “Multi-Cor”, “Max-Rib”, “Mac-Rib”, “U”, “PBU”, “Mirage II”, “Maxima ADV”, and “Met-Tile”, “ABC Permaseam Panel;”, “ABC SL Low Panel”, ABC JSM 200”, “ABC Instaloc”, ABC SERIES 300”, “238T Roof Panel”, and “138T Roof Panel”.

Class 4 formed copper panel, designated “ABC JSM 200”

Class 4 formed aluminum panel, designated “ABC 238T Roof Panel” and “Medallion-Lok”.

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TECHNICAL BULLETIN

Issue Date : June 1, 2006

Revised: December 13, 2013

No. 04-270-06

Tests for Fire Resistance Ratings of Roof Covering Materials

UL 263 (ASTM E119 and NFPA 251)

The following products:

Mechanically attached metal roof panels "Multi-Rib", "Master-Lok 90", "R ", "Medallion-Lok ", "Medallion", "Medallion I Batten", "Medallion II Batten", "5V-Crimp", "Mega-Rib", "Max-Rib", "Maxima 212", "Maxima 216", "Maxima 218", "Maxima 318", "Maxima 324", "Metalogic-2000", "Mirage ", "U", "Maxima 1.5", "Mirage II", "Maxima ADV" and "Met-Tile", secured by steel anchor clips. Anchor clips are attached to a hat shaped member+ (minimum depth 1 in.) or a bearing plate ++.

Mechanically attached metal roof panels, identified as "ABC Permaseam Panel", "ABC SL Low Panel", "ABC JSM 200", "ABC Instaloc", "ABC SERIES 300" and "ABC 238T Roof Panel", secured by steel anchor clips. Anchor clips are attached to a hat shaped member+ (minimum depth 1 in.) or a bearing plate +++.

Have been approved for use in the following Underwriters Laboratories design numbers:

P225, P227, P230, P237, P250, P259, P265, P266, P268, P508, P510, P512, P514, P516, P518, P701, P711, P712, P713, P717, P719, P720, P722, P723, P726, P731, P732, P734, P739, P740, P801, P815, P819, P824, P825, and P828.

+Hat-shaped member to be a minimum of 16 gauge. The member will be fastened through the roof insulation to the steel roof deck with No. 14 self-drilling and/or self-tapping fasteners. Spacing to be determined by the structural loading requirements. In addition any compressible UL Classified glass fiber blanket insulation with or without a vapor-retarder facing may be used between the specified roof insulation and the metal roof panels.

++Bearing plate to be a minimum of 16 gauge. Member will be fastened through the roof insulation to the steel deck with No. 14 self-drilling and/or self-tapping fasteners.

+++Bearing plate to be a minimum of 24 gage . Member will be fastened through the roof insulation to the steel deck with No. 14 self-drilling and/or self-tapping fasteners.

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TECHNICAL BULLETIN

Issue Date : June 1, 2006

Revised : April 24, 2017

No. 04-266-06

Tests for Fire Resistance of Roof Covering Materials UL 790 (ASTM E108 and NFPA 256)

Class A

Coated Steel Panels (surfacing) identified as "Multi-Rib", "Master-Lok", "R", "Medallion-Lok", "Medallion", "Medallion I Batten", "Medallion II Batten", "Meridian", "5V-Crimp", "Mega-Rib", "Maxima 1.5", "Maxima 212", "Maxima 216", "Maxima 218", "Maxima 318", "Maxima 324", "Metalogic-2000", "Mirage", "M-Cor", "Multi-Cor", and "Max-Rib", "U", "PBU", "Mirage II", "Maxima ADV", "Met-Tile", "ABC Perma seam Panel", "ABC SL Low Panel", "ABC JSM 200", "ABC Instaloc", "ABC Series 300", "238T Roof Panel", and "138T Roof Panel".

Copper panels (surfacing) identified as "ABC JSM 200".

Aluminum panels (surfacing) identified as "ABC 238T Roof Panel" and "Medallion-Lok".

- 1. Deck: C-15/32 **Incline:** Unlimited **Impact:** Class 4
Barrier Board: - Georgia Pacific ¼ in. min " Densdeck" board or ¼" min United Sates Gypsum Co SECURELOCK® Glass-Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or " DEXcell FV Glass Mat Roof Board", CertainTeed Gypsum "GlasRoc" or ½ in. min UL classified gypsum board with all joints staggered a min of 6 in. from the plywood joints.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies "Ice and Water Shield".
Surfacing: - Coated Steel, Aluminum, or Copper roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.
- 2. Deck: NC **Incline:** Unlimited **Impact:** Class 4
Barrier Board (optional): - ¼ in. (min) G-P Gypsum Densdeck® United States Gypsum Co SECURELOCK ®, Glass Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or " DEXcell FV Glass Mat Roof Board", CertainTeed Gypsum "GlasRoc".
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies "Ice and Water Shield".
Surfacing: - Coated Steel, Aluminum, or Copper roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.
- 3. Deck: NC **Incline:** Unlimited **Impact:** Class 4
Barrier Board (optional): - 7/16 OSB or 5/8 in. plywood over polyisocyanurate insulation board or polyisocyanurate composite board, any thickness.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies "Ice and Water Shield".
Surfacing: - Coated Steel, Aluminum, or Copper roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.
- 4. Deck: NC **Incline:** Unlimited **Impact:** Class 4
Barrier Board (optional): - Polyisocyanurate, glass fiber, perlite, or wood fiber, any thickness.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies "Ice and Water Shield".
Surfacing: - Coated Steel, Aluminum, or Copper roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.
- 5. Deck: NC **Incline:** Unlimited **Impact:** Class 4
Insulation: - None Required, however any UL Classified insulations may be over open purlin spans. Any combination and any total thickness of insulation may be used.
Surfacing: - Coated Steel, Aluminum, or Copper roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.
- 6. Deck: C-15/32 **Incline:** Unimited **Impact:** Class 4
Barrier Board: - Georgia Pacific ¼ in. min " Densdeck" board or ¼" min United Sates Gypsum Co SECURELOCK® Glass-Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or " DEXcell FV Glass Mat Roof Board", CertainTeed Gypsum "GlasRoc" or ½ in. min UL classified gypsum board with all joints staggered a min of 6 in. from the plywood joints.
Ply Sheet (Optional): - Any UL Classified Type G1, G2 or G3 base/ply sheet, Type 15, 20 or 30 felt or UL Classified prepared roofing accessory or GCP Applied Technologies "Ice and Water Shield".
Surfacing: - Coated Steel, Aluminum, or Copper roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

Class C

- 1. Deck: C-15/32 **Incline:** No Limitations **Impact:** Class 4
Surfacing: - Coated Steel roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

Maintenance and Repair

Class A, B, or C

- 1. Deck: C-15/32 **Incline:** No Limitations **Impact:** Class 4

Existing Roof System: - (to maintain existing Classifications) Class A, B or C smooth or mineral surfaced cap sheet or asphalt glass mat shingles or organic felt shingles.

Ply Sheet (Optional): - Type 15 or 30 organic felt or UL classified self-adhering modified bitumen membrane.

Surfacing: - Coated Steel "138T Roof Panel", mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.



TECHNICAL BULLETIN

Issue Date : November 26, 2007

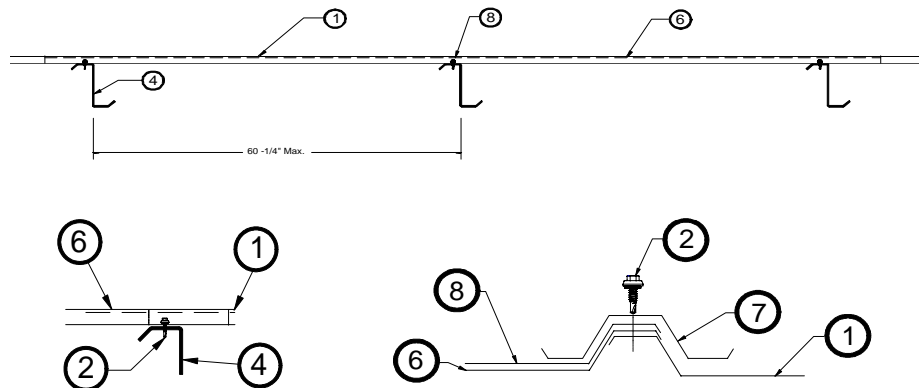
No. 03-303-07

UL Construction #166 Multi-Rib w/ Skylight UL580 Class 90 Wind Uplift

- Metal Roof Deck Panels*** - No. 26 MSG min coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped 6 in. with lap centered over purlin web. A line of sealant may be used at panel end and side laps.
McElroy Metal Mill, Inc. "Multi-Rib"
- Fasteners** – For panel to purlin connections fasteners to be No. 12-14 self-drilling, self-tapping, hex-washer head, plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Length to be 1 in. for insulation up to 3 in. thick and 1-1/2 in. for insulation over 3 in. Spacing to be in a 5-7-5-7 in. pattern beginning 2- 1/2 in. from the centerline on both sides of each major rib. Spacing at end laps to be the same. Fasteners for panel to panel connections to be No. 14 x 3/4 in. self-drilling self tapping, hex head plated steel screws with a separate 5/8 in OD plated steel washer and a bonded neoprene sealing washer. Spacing to be 20 in. oc with a fastener located inline with the purlin fasteners.
As an alternate fastener – For panel to purlin connections, No. 14 self-tapping, hex head plated steel screws, with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Length to be 3/4 in. for insulation up to 3 in. thick and 1-1/4 in. for over 3 in. thickness. Pilot holes to be 3/16 in. diameter. Spacing to be the same as for self-drilling fasteners. For translucent panel to purlin (end lap) connections, fasteners to be hex-head No. 12-14 structural, self-drilling screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Length to be 1-1/2 in. for insulation up to 6 in. Spacing to be in a 3, 1 1/2, 3, 4 1/2, 3, 1 1/2, 3 in. pattern beginning 2 1/4 in. from the centerline on both sides of each major rib. For translucent panel to metal (side lap) connections, fasteners to be hex-head No. 14 x 7/8 in. long, self-drilling steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Spacing to be 12 in. OC.
- Insulation** – (Optional) – Any compressible blanket insulation 4 in. max. thickness before compression.
- Purlin** – No. 16 MSG min gauge coated steel 50,000 psi min yield strength.
- Lateral Bracing** – (Not shown) – As required.
- Building Units** - *(Optional) – (Translucent glass fiber reinforced plastic panels) Thickness nominal 1/16 in., formed to the general profile of the metal panels. Panels continuous over two spans. To be used with Translucent Panel Rib Reinforcement (Item 7) and Translucent Panel Reinforcement (Item 8).
McElroy Metal Mill Inc – "Multi-Rib Skylight"
- Translucent Panel Rib Reinforcement** – For reinforcement of side laps – no 26 MSG min gauge steel strips fabricated to the configuration of side lap.
- Translucent Panel Purlin Reinforcement** – for translucent panel reinforcement over purlins – 3 in. wide by No. 26 MSG min. gauge strips fabricated in the shape of the Classified Metal Roof Deck Panel (Item 1).

Refer to General Information, Roof Deck Construction, (Roofing Materials and Systems Directory) for items not evaluated.

*Bearing the UL Classification Marking



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SHREVEPORT, LOUISIANA



Construction No. 166 TGKX.166 Roof Deck Constructions

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- 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.

Roof Deck Constructions

[See General Information for Roof Deck Constructions](#)

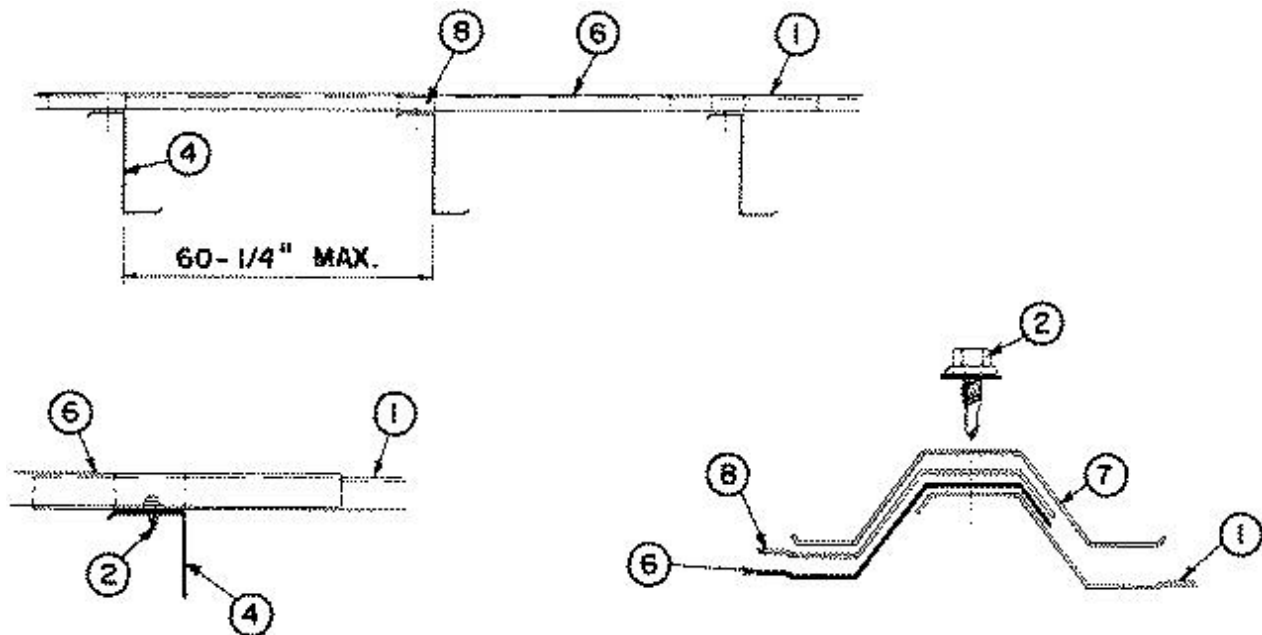
Construction No. 166

April 08, 2013

Metal Deck Assemblies

Wind Uplift — Steel Panels — Class 90

Fire Not Investigated



1. **Metal Roof Deck Panels*** — No. 26 MSG min gauge coated steel. Panels continuous over two or more spans. End laps to occur over purlins with panels overlapped 6 in. with lap centered over purlin web. A line of sealant may be used at panel end and side laps.

FLEXOSPAN STEEL BUILDINGS INC ([View Classification](#))

MCELROY METAL MILL INC ([View Classification](#))

TREMCO INC ([View Classification](#)) — "TremLock "R" Plus Panel"

2. **Fasteners** — For panel to purlin connections, fasteners to be No. 12-14 self-drilling, self-tapping, hex-washer head plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Length to be 1 in. for insulation up to 3 in. thick and 1-1/2 in. for insulation over 3 in. Spacing to be in a 5-7-5-7 in. pattern beginning 2-1/2 in. from the centerline on both sides of each major rib. Spacing at end laps to be the same.

Fasteners for panel to panel connections to be No. 14 by 3/4 in. self-drilling, self-tapping, hex-head plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Spacing to be 20 in. OC with a fastener located in line with the purlin fasteners.

As an Alternate Fastener — For panel to purlin connections, No. 14 self-tapping hex-head plated steel screws with a separate 5/8 in. OD plated steel washer and a bonded neoprene sealing washer. Length to be 3/4 in. for insulation up to 3 in. thick and 1-1/4 in. for over 3 in. thickness. Pilot holes to be 3/16 in. diameter. Spacing to be the same as for self-drilling fasteners.

For translucent panel to purlin (end-lap) connections, fasteners to be hex-head No. 12-14 structural, self-drilling screws with a separate 5/8 in. O.D. plated steel washer and a bonded neoprene sealing washer. Length to be 1-1/2 in. for insulation up to 6 in. Spacing to be in a 3, 1-1/2, 3, 4-1/2, 3, 1-1/2, 3, 4-1/2, 3, 1-1/2, 3 in. pattern beginning 2-1/4 in. from the centerline on both sides of each major rib.

For translucent panel to metal (side-lap) connections, fasteners to be hex-head No. 14 by 7/8 in. long, self-drilling steel screws with a separate 5/8 in. O.D. plated steel washer and a bonded neoprene sealing washer. Spacing to be 12 in. O.C.

3. **Insulation** — (Optional) — Any compressible blanket insulation, 4 in. max thickness before compression.

4. **Purlin** — No. 16 MSG min gauge coated steel, 50,000 psi min yield strength.

5. **Lateral Bracing** — (Not shown) — As required.

6. **Building Units** — *(Optional) — (Translucent glass fiber reinforced plastic panels) — Thickness nominal 1/16 in., formed to the general profile of the metal panels. Panels continuous over two spans. To be used with Translucent Panel Rib Reinforcement (Item 7) and Translucent Panel Reinforcement (Item 3).

MCELROY METAL MILL INC ([View Classification](#)) — Multi-Rib Skylight

7. **Translucent Panel Rib Reinforcement** — For reinforcement of side laps — No. 26 MSG min. gauge steel strips fabricated to the configuration of side lap.

8. **Translucent Panel Purlin Reinforcement** — For translucent panel reinforcement over purlins — 3 in. wide by No. 26 MSG min. gauge strips fabricated in the shape of the Classified Metal Roof Deck Panel (Item 1).

Refer to General Information, Roof Deck Construction (Roofing Materials and Systems Directory) for items not evaluated.

*Bearing the UL Classification Mark

Last Updated on 2013-04-08

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Construction No. 648 TGKX.648 Roof Deck Constructions

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- 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.

Roof Deck Constructions

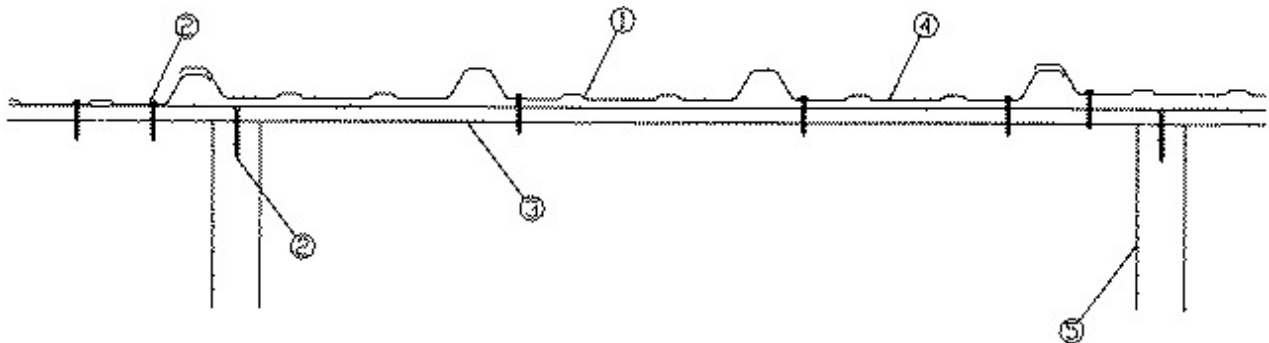
[See General Information for Roof Deck Constructions](#)

Construction No. 648

April 08, 2013

Uplift — Class 90

Fire Classified



1. **Metal Roof Deck Panels*** — Minimum 0.0225 in. thick or 24 MSG coated steel. Max panel width 36 in.

MCELROY METAL MILL INC ([View Classification](#)) — "Multi-Rib"

TREMCO INC ([View Classification](#)) — "TremLock "R" Plus Panel"

2. **Fasteners** — Fasteners used to attach the plywood deck (Item 3) to the joists (Item 5) to be No. 8D ring shank nails spaced 6 in. OC at plywood edges and 6 in. OC in the field. Fasteners used to attach the panels to the plywood deck to be No. 14 by 1-1/2 in. long Type A hex head steel screws with 9/16 in. diameter metal washer and bonded neoprene rubber seal. Screws to be spaced 12 in. O.C. along the width of the panel and 24 in. O.C. along the length of the panel. The overlapping panel edges to be fastened together with No. 14 by 7/8 in. long hex head steel screws spaced 20 in. O.C. along the length of the panel.

3. **Deck** — Min 19/32 in. thick, Type B-C rated plywood, all butt joints to occur over supports.

4. **Underlayment (Optional)** — 30 lb felt, min 2 in. sidelap, attached per manufacturers recommendations.

5. **Joists** — Graded dimension lumber, No. 2 or better. Spaced a maximum of 24 in. OC.

Refer to general information, Roof Deck Construction, for Items not evaluated.

*Bearing the UL Classification Mark

Last Updated on 2013-04-08

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