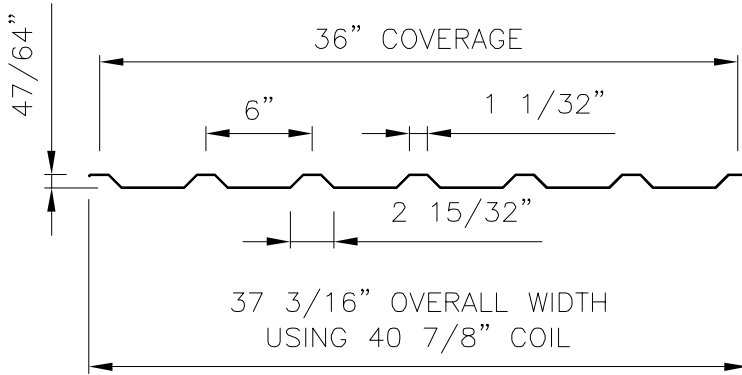
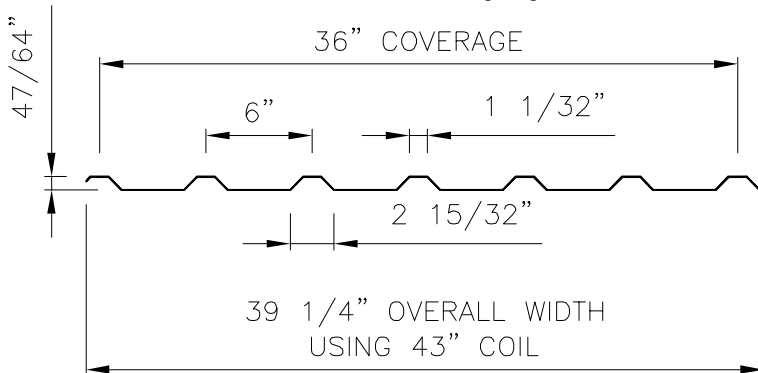


U-Panel and U-Panel PB

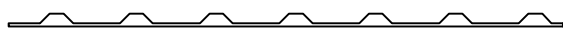
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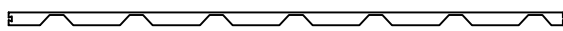
U-PANEL PROFILE
(Non-Purlin Bearing Leg)



U-PANEL PROFILE
(Purlin Bearing Leg)



FOAM INSIDE CLOSURE



FOAM OUTSIDE CLOSURE

Applications

Exposed fastener wall/roof panel and used extensively as a Liner Panel. Minimum slope of 2:12. Tape sealant is required on seam (side-laps) Standard panel lengths up to 50'. Please inquire for longer lengths.

Substrates

Plywood, Hat Section, Mac-Girts, Wall Girts, or Purlins.

Material

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

Optional - 22 ASTM A792 (50 ksi steel) *wall panels*

AZ55 - Bare, AZ50 - Painted

- 24 GA. ASTM A792 (50 & 80 ksi steel) *wall panels*

AZ55 - Bare, AZ50 - Painted

- 29 GA. ASTM A792 (80 ksi steel) *liner panels - narrow coverage* AZ55 - Bare, AZ50 - Painted

Manufacturing

Roll formed in factory.

Pan Conditions

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

Finishes

Acrylic Coated Galvalume®

Fluoropolymer (Kynar 500® PVDF resin-based)

Siliconized Polyester

Testing *

Uplift: UL 580 Class 90

Fire Resistance: UL 263 & UL 790 Class A

Impact Testing: UL 2218 Class 4

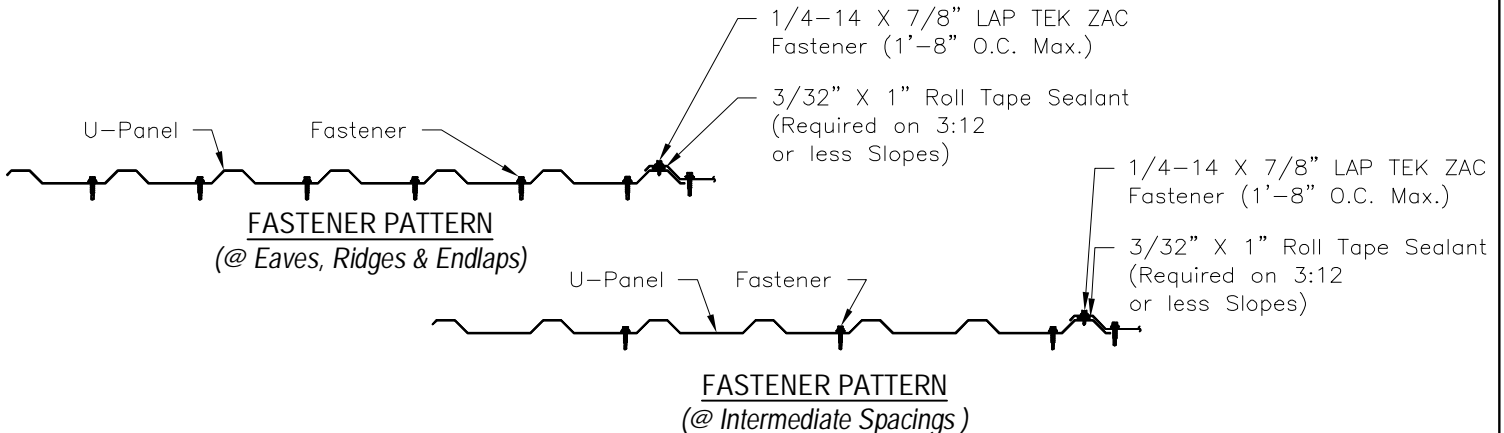
Florida Product Approval: FL 8885.1

IAPMO Approval: ER-0270

Testing and Approvals are product specific. Please inquire for details.

NOTE:

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





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.



Construction No. 39 TGKX.39 Roof Deck Constructions

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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.

Roof Deck Constructions

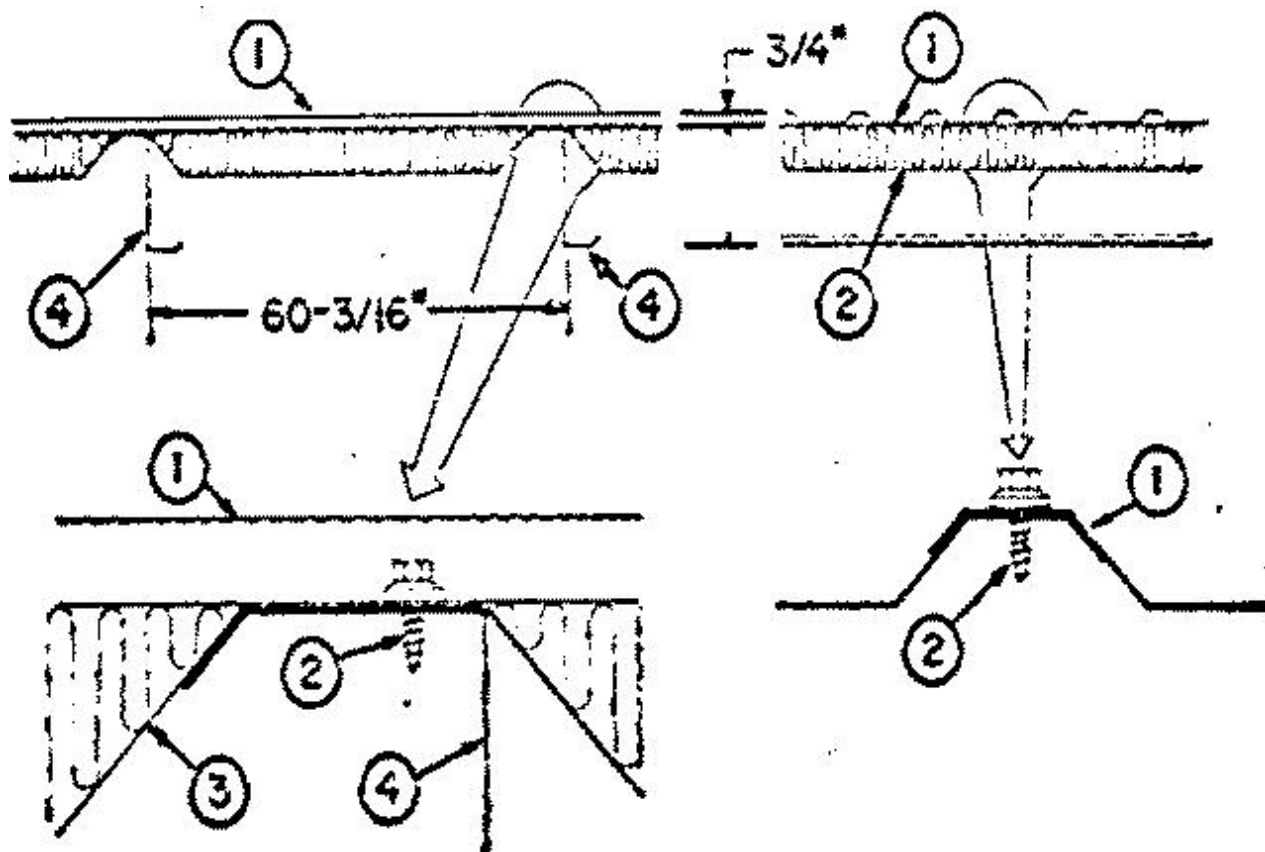
[See General Information for Roof Deck Constructions](#)

Construction No. 39

June 21, 2013

Uplift — 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 beginning 1 in. from edge of purlin flange and extending across purlin. A bead of sealant may be used at panel end and side laps.

ACI BUILDING SYSTEMS INC ([View Classification](#)) — "M" or "PBM"

ALLIANCE STEEL INC ([View Classification](#)) — "Alliance M"

ALLSOUTH PRE-ENGINEERED COMPONENTS L L C ([View Classification](#)) — "U" or "PBU" Panel

AMERICAN BUILDINGS CO ([View Classification](#)) — "Multi-Rib".

BERRIDGE MFG CO ([View Classification](#)) — Type "M"

BUILDING COMPONENTS INC ([View Classification](#)) — "U-Panel".

BBM STEEL BUILDINGS INC ([View Classification](#)) — "M-Panel"

CENTRAL STATES MFG INC ([View Classification](#)) — "M-Loc"

CENTRAL TEXAS METAL ROLLFORMING INC ([View Classification](#)) — "U-Panel"

FAB TECH INC, DBA CORLE BUILDING SYSTEMS ([View Classification](#)) — "R Panel"

DEAN STEEL BUILDINGS INC ([View Classification](#)) — "RIB-6" .

EAST TEXAS ARCHITECTURAL SHEETMETAL L L C, DBA ETAS INC ([View Classification](#)) — Type "U" or "PBU"

JNL STEEL COMPONENTS INC ([View Classification](#)) — Type "U-PANEL" or "PBU-PANEL"

MBCI ([View Classification](#)) — Type " U " or " PBU " .

MCELROY METAL MILL INC ([View Classification](#)) — "U".

METAL SALES MANUFACTURING CORPORATION ([View Classification](#)) — Type "U" or "PBU".

MUELLER INC ([View Classification](#)) — "PBU" or "UPN" or "U"

NCI BUILDING SYSTEMS L P ([View Classification](#)) — Type "U" or "PBU"

SCHULTE BUILDING SYSTEMS INC ([View Classification](#)) — "U" or "PBU" Panel

SOUTHWEST METAL COMPONENTS AND SUPPLY LP ([View Classification](#)) — "U-Panel" or "PBU"

TEXAS BUILDING AND ROOFING SUPPLIES INC — "U" or "PBU"Panel

TEXOMA STEEL BUILDINGS INC ([View Classification](#)) — "U/M" Panel.

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

WHIRLWIND STEEL BUILDINGS INC ([View Classification](#)) — "Lo-Rib".

2. Panel Fasteners — For panel to purlin and panel to panel connections to be No. 14 self-tapping, hex-head, plated steel or stainless steel screws with a separate 5/8 in. O.D. steel or aluminum washer and a separate neoprene sealing washer. Length: For panel to purlin fasteners to be 3/4 in. for insulation up to 3 in. and 1-1/4 in. for insulation over 3 in. For panel to panel fasteners to be 3/4 in.

Spacing for panel to purlin fasteners to be 6 in. O.C. with fasteners located adjacent to the major ribs.

Pilot holes: For panel to purlin fasteners to be 13/64 in. diam.

For panel to panel fasteners to be 1/8 in. diam.

At end laps spacing to be 6 in. O.C. with fasteners located adjacent to major ribs.

Spacing for panel to panel fasteners to be 12 in. O.C.

Pilot holes: For panel to purlin fasteners to be 13/64 in. diam.

For panel to panel fasteners to be 1/8 in. diam.

As An Alternate Fastener — No. 12-14 self-drilling, self-tapping, 1/2 in. hex-washer head Type B steel or stainless steel screws with a neoprene sealing washer may be used. Length: For panel to purlin fasteners to be 1 in. for insulation up to 3 in. and 1-1/2 in. for insulation over 3 in. For panel to panel fasteners to be 1 in. Spacing to be the same.

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

4. Purlins — No. 16 MSG min gauge steel (55,000 psi min yield strength). Refer to General Information, Roof Deck Construction (Roofing Materials and Systems Directory) for Items not evaluated.

*Bearing the UL Classification Mark

Last Updated on 2013-06-21

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