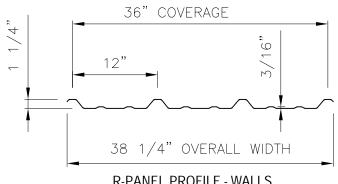
# McELROY METAL, INC



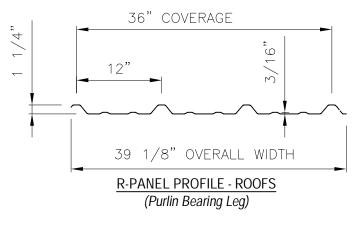
www.mcelroymetal.com

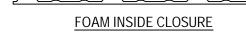
### R-Panel and R-Panel PB

### **Product Data**



### R-PANEL PROFILE - WALLS (Non-Purlin Bearing Leg)







### **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.

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 (PBR 26ga. & 24ga. only)

Impact Testing: UL 2218 Class 4

Fire Resistance: UL 263 & UL 790 Class A

Miami Dade Approval: NOA# 13-1024.02 (roof - 24GA. min. PBR)

NOA# 14-0102.07 (wall - 24GA. min. PBR)

Florida Product Approval: FL 1747.9 & FL 1832.11-R

FL 12951.1 - PBR

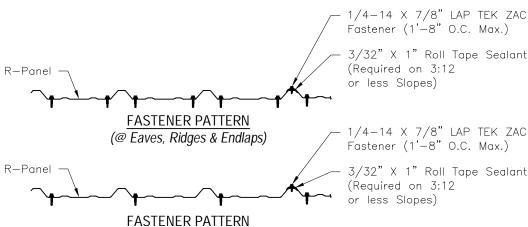
Texas Windstorm: RC-284 (PBR only)

\*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.



(@ Intermediate Purlins)

Fastener (1'-8" O.C. Max.) 3/32" X 1" Roll Tape Sealant

(Required on 3:12 or less Slopes)

1/4-14 X 7/8" LAP TEK ZAC Fastener (1'-8" O.C. Max.)

3/32" X 1" Roll Tape Sealant (Required on 3:12 or less Slopes)

R-PANEL PAGE 1 of 1



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	}R
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 <a href="http://www.tdi.state.tx.us/wind">http://www.tdi.state.tx.us/wind</a>.



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".



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", "SV-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.



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", "Medall Crimp", "Mega-Rib", "Maxima 1.5", "Maxima 212", "Maxima 216", "Maxima 318", "Maxima 324", "Metallogic-2000", "Mirage", "M-Cor", "Multi-Cor", and "Max-Rib", "U", "PBU", "Mirage II", "Maxima ADV", "Met-Tile", "ABC Permaseam 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".

Incline: Unlimited 1. Deck: C-15/32 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.

Incline: Unlimited 2. Deck: NC Impact: Class 4

Barrier Board (optional): - ¼ in. (min) G-P Gypsum Densdeck<sup>®</sup>. United States Gypsum Co SECURELOCK <sup>®</sup>, Glass Mat Roof Board (Type SGMRX), National Gypsum "DEXcell Glass Mat Roof Board" or "DEXcell FV Glass Mat Roof Board", CertainTeed Gypsum "GlassRoc".

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.

Incline: Unlimited 4 Deck: NC 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

Surfacing: - Coated Steel, Aluminum, or Copper roofing panels, mechanically fastened or with steel screws when roof deck fasteners (panel clips) not required.

Incline: Unimted 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 1/2 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.

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

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

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

Ply Sheet (Otional): - 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.

CORPORATE OFFICE • P.O. BOX 1148 • SHREVEPORT, LA 71163-1148 • (318) 747-8000 • FAX (318) 747-8029

# TECHNICAL BULLETIN

Issue Date : January 10, 2000 No. 03-108-00

### UL Construction #161 R-Panel

**UL580 Class 90 Wind Uplift** 

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 a min of 4 in. with lap centered over purlin web. A line of sealant may be used at panel side and end laps.

McElroy Metal Mill, Inc. "R-Panel"

2. **Panel Fasteners** – For panel to panel and panel to purlin connections to be No. 12-14 by 1 in. self drilling, self-tapping, hex head, plated steel screws with a 5/8 in. OD formed steel washer and a neoprene sealing washer. As alternate fasteners – for panel to purlin connections, ¼ -14 HHAB self-tapping plated steel screws, with a separate 5/8 in. OD dome shaped steel washer and a neoprene sealing washer may be used.

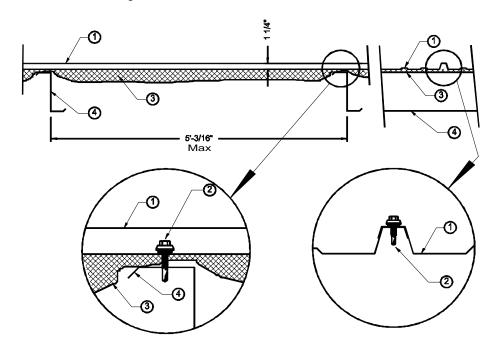
Spacing, for panel to purlin connections to be 12 in. on center beginning 2-½ in. from centerline on one side of each major rib. Spacing at end lap to be in a 5/7/5/7-in. pattern beginning 2-½ in. form the centerline on both sides of each major rib.

Fastener for panel to purlin connection to be 1 ¼ in. long when insulation (Item 3) is greater than 4 ½ in. Spacing for panel to panel connections to be 20 in. on center with a fastener located in line with the purlin fasteners.

- 3. Insulation (Optional) Any compressible blanket insulation 6 in. max. thickness before compression.
- 4. **Purlin** No. 16 MSG min gauge steel (50,000 psi min yield).
- 5. Lateral Bracing (Not shown) As required.

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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# **TECHNICAL BULLETIN**

Issue Date: April 15, 2002 No. 03-138-02

### **UL Construction #167 R-Panel UL580 Class 90 Wind Uplift**

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 laps beginning even with purlin web and extending across purlin flange. A bead of sealant may be used at panel side and end laps.

McElroy Metal Mill, Inc.

"R-Panel"

Building Units\* - Translucent, reinforced plastic panels. Thickness 1/16 in. formed to the same configuration as the metal roof deck panels. Panels continuous over two spans. "R-Skylight"

McElroy Metal Mill, Inc.

Panel Fasteners - For steel panel to purlin and for translucent panel to purlin connections to be No. 12-14 by 1 in. self-drilling, self-tapping, hex head, plated steel screws with a separate or integral 9/16 in. to 5/8 in. O.D. formed steel or combination zinc and steel washer and a neoprene/EPDM sealing washer. Fasteners for panel connection to be same type and length.

Fastener for panel to purlin connection to be 1-1/4 in. long when insulation (Item 6) is greater than 4-1/2 in.

Spacing For steel panel to purlin fasteners, spacing to be 12 in. on center beginning 2-1/2 in. from the center line on one side of each major rib.

Spacing at end lap to be in a 5-7-5-7 in. pattern beginning 2 ½ in. from the center line on both sides of each major rib.

For translucent panel - to - purlin fasteners, spacing to be in a 5, 3 ½, 3 ½, 5 in. pattern beginning 2 ½ in. from the center line on both sides of each major rib.

For steel panel - to - panel fasteners, spacing to be 20 in. on center. For translucent panel - to - steel panel fasteners, spacing to be 12 in. on center driven into rib reinforcement (Item 4).

- Translucent Panel Rib Reinforcement For side support hat shaped section fabricated from No. 26 MSG steel to the configuration of the steel panel major rib.
- Translucent Panel Purlin Reinforcement For translucent panel reinforcement over purlins, 3 in. wide by No. 26 MSG thick steel strips fabricated in the shape of the metal panel.
- Insulation (Optional) Any compressible blanket insulation 6 in. max thickness before compression.
- Purlins No. 16 MSG min gauge steel (50,000 psi min yield strength).
- **Lateral Bracing** (Not shown) As required.

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

