



Engineering Technical Bulletin

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FACTORY MUTUAL GLOBAL Approval of PBR™ Standing Seam Roof Systems as Class 1 Panel Roof

MBCI

<u>Trade Name:</u>	PBR Through Fastened Roof System.
<u>Size:</u>	22-ga. (0.0299 in., 0.76mm) or 24-ga. (0.0240 in., 0.61 mm) steel panels, max. 36 in. (991 mm) wide coated with Signature 200 or 300 paint or Galvalume.
<u>Supports:</u>	Min. 16-ga. (0.0598 in., 1.5 mm) steel supporting members.
<u>Application:</u>	Secured as described below to structural supports min. 16-ga. (0.0598 in., 1.5 mm) to max 12-ga. (0.1046 in., 2.7 mm). A min. length on ½ in. (13 mm) of threaded portion of screw must penetrate underside of purlin.
<u>Optional Insulation:</u>	Max. 6 in. (152 mm) vinyl faced glass fiber blanket insulation, (max supporting members spacing 5 ft. (1.5 m) o.c., placed between the roof panels and the supporting member.
<u>Hail Rating:</u>	Class 1-SH.
<u>ASTM E 108:</u>	Class A noncombustible deck at max. 5 in 12 slope.

Construction #1: PBR Roof Panels, min. 24-ga. (0.0240 in., 0.61 mm), max. 36 in. (991 mm) wide are secured to min. 16-ga. (0.0598 in., 1.5 mm) steel supporting members, spaced a max. 5 ft. (1.5 m) o.c., with ¼-14 1 ¼" ZAC. Panels are secured to 0.0598 to 0.10 in. (1.5 to 2.5 mm) thick steel supports using ¼-14 x 1 ¼" fasteners applied on one side of each of the panels major ribs spaced at 12" o.c. Max 6 in. (152 mm) vinyl-faced fiberglass batt insulation is optional. .
Meets Class 1-135. RoofNav Assembly Number – 160514-0-0.

Construction #2: PBR Roof Panels, min. 24-ga. (0.0240 in., 0.61 mm), max. 36 in. (991 mm) wide are secured to min. 16-ga. (0.0598 in., 1.5 mm) steel supporting members, spaced a max. 5 ft. (1.5 m) o.c., with ¼-14 1 ¼" ZAC. Panels are secured to 0.0598 to 0.10 in. (1.5 to 2.5 mm) thick steel supports using ¼-14 x 1 ¼" fasteners applied on each side of the panels major ribs spaced at 5"-7"-5"-7"-5"-7" resulting in 6 screws per panels. Max 6 in. (152 mm) vinyl-faced fiberglass batt insulation is optional. .
Meets Class 1-165. RoofNav Assembly Number – 161355-0-0.

Approval Report No. 3022790

Dated:

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FM Global (Factory Mutual) Approvals

RATING	PROFILE	WIDTH (IN)	GAUGE	PURLIN SPACING (FT)	PURLIN GA.	FASTENER TYPE	NUMBER OF FASTENERS	CLIP	WIND CLAMPS PER CLIP	STITCH FASTENER	STITCH FASTENER SPACING
1-135	PBR ¹	36	24	5'-3 1/4"	16	1/4-14 X 1 1/4 ZAC ²	3	n/a	n/a	1/4-14 X 7/8 ZAC ³	20" o.c.
1-165	PBR ¹	36	24	5'-3 1/4"	16	1/4-14 X 1 1/4 ZAC ²	6	n/a	n/a	1/4-14 X 7/8 ZAC ³	20" o.c.

Notes:

¹ All roofs are Class 4471

² Fastener #1 E

³ Fastener #4