



Engineering Technical Bulletin

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FACTORY MUTUAL GLOBAL

Approval of EM SuperLok® Standing Seam Roof Systems as Class 1 Panel Roof

- Trade Name:** EM SuperLok® Standing Seam Roof System with Low or High Float G-90 Galvanized Clips.
- Size:** Min. 24-ga. (0.0239 in., 0.61 mm) steel panels, max. 16 in. (406 mm) wide coated with Signature® 200 or 300 paint or Galvalume®.
- Supports:** Min. 16-ga. (0.0598 in., 1.5 mm) steel supporting members.
- Application:** Secured as described below to min. 16-ga. (0.0598 in., 1.5 mm) thick steel supporting members. A min. length on ½ in. (13 mm) of threaded portion of screw must penetrate underside of purlin.
- Special Application:** Optional liner panels are corrugated decks of Galvalume® coated steel or painted Galvalume® steel having a min. yield strength of 50 ksi (345 N/mm²). The panels are min. 0.017 in. (0.4 mm) thick, 36 in. (914 mm) wide and 1³/₁₆ in. (21 mm) or 1 ¼ in. (32 mm) deep, PBU Liner Panels and PBR Liner Panels, respectively.
- Optional Insulation:** Max. 6 in. (152 mm) vinyl faced glass fiber blanket insulation, or Celotex® Thermax Insulation Board, max. 4.25 in. (108 mm) thickness (max supporting members spacing 5 ft. (1.5 m) o.c., placed between the roof panels and the supporting members and used in conjunction with either the PBU or PBR liner panel. Steel Bearing Plates of 16-ga. (0.0598 in., 1.5 mm) red oxide coated steel plate having min. yield strength of 50 ksi (345 N/mm²). The plate measures 4 in. x 5 in. (102 mm x 127 mm), has one recessed ¼ in. (6.4 mm) dia. center hole, two ¼ in. (6.4 mm) wide by 1 in. long slots and is applied over ridged insulation and positioned. The clips, as described below, are secured through the bearing plate, insulation and liner panel to the steel supporting members.
- Hail Rating:** Class 1-SH.
- ASTM E 108:** Class A noncombustible deck at max. 5 in 12 slope.
- Construction #1:** EM SuperLok® Roof Panels, max. 16 in. (406 mm) wide panels are secured to steel supports using screws and Low or High Float G-90 Galvanized Clips. Clips are secured to 0.0598 to 0.10 in. (1.5 to 2.5 mm) thick steel supports using two Construction Fasteners; ¼-14x1 ¼ HWH SD Screws or two Atlas ¼-14x1 ¼ HWH Long Pilot TCP2 Screws per clip.
- Construction #1a:** EM SuperLok® Roof Panels, min. 24-ga. (0.0239 in., 0.61 mm) thick are secured to steel supports spaced at max. 4 ft. (1.2 m) o.c. **Meets Class 1-90.** RoofNav Assembly numbers: 29793-0-0, 29814-0-0, and 29828-0-0.
- Construction #1b:** EM SuperLok® Roof Panels, min. 22-ga. (0.0299 in., 0.76 mm) thick are secured to steel supports spaced at max. 4 ft. (1.2 m) o.c. **Meets Class 1-135.** RoofNav Assembly numbers: 29800-0-0, 29896-0-0, and 29903-0-0.
- Construction #1c:** EM SuperLok® Roof Panels, min. 22-ga. (0.0299 in., 0.76 mm) thick are secured to steel supports spaced at max. 5 ft. (1.5 m) o.c. **Meets Class 1-105.** RoofNav Assembly numbers: 29807-0-0, 29821-0-0, and 29899-0-0.

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