

TremLock SL

TremLock SL roof panels are a factory roll formed from 24 gauge Galvanized (G-90 coating), per ASTM specifications A653 and painted with exterior colors of Low Gloss finish system, a full strength, 70% Kynar® 500 (or Hylar® 5000) fluoropolymer coating.

OR

TremLock SL roof panels are a factory roll formed from 24 gauge Galvalume® steel, coated both sides with a layer of aluminum-zinc alloy (approximately 55% aluminum, 45% zinc by volume), applied by continuous hot dip method. Triple spot minimum 0.05 ounce per square foot as determined by the triple spot test per ASTM specification A792.

The TremLock SL is a snap together architectural standing seam metal roof system intended for applications where solid substrate is provided by 22 gauge metal deck or 5/8" wood materials with a minimum slope of 3:12. The roof system also may be used in a near vertical application such as fascias, mansards or equipment screens.

Features:

- Factory installed rib sealant
- Snap together panels
- Intended for applications where substrate is provided

Benefits:

- Ensures a uniform seal in the seam
- No field seaming required
- 3:12 slope and above, such as vertical application, mansards, equipment screens

Kynar® 500 is a registered trademark of Elf Atochem North America, Inc.

Hylar® 5000 is a registered trademark of Ausimont USA, Inc.

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GENERAL

The roof shall be the TremLock SL roof system as furnished by Tremco Incorporated and installed in accordance with the manufacturer's instructions.

2. PANEL MATERIALS AND FINISH

2.1 Roof Panels

2.1.1 Roof panels shall be factory roll formed TremLock SL panels as manufactured by Tremco Incorporated; 16" wide with 2 major corrugations 1.5" high, 16" on center and optional minor fluting 4" on center between and parallel to major corrugations with factory installed sealant in the female leg.

2.1.2 Panel material as specified shall be 24 ga. Galvanized (G-90 coating), per ASTM specification A653 and painted with exterior colors of Low Gloss finish system, a full strength, 70% Kynar® 500 (or Hylar® 5000) fluoropolymer coating. The manufacturer shall warrant the coating not to peel, crack, chip, check or experience material rust through for 20 years. For a period of 20 years, chalking shall not exceed #8 - ASTM D4214 and fading shall be 5DE color difference units or less

OR

Panel material as specified shall be 24 ga. Galvalume® steel, coated both sides with a layer of aluminum-zinc alloy (approximately 55% aluminum, 45 % zinc by volume) applied by the continuous hot dip method. Triple-spot minimum 0.55 ounce per square foot as determined by the triple-spot test per ASTM specification A792.

2.2 Coating

2.2.1 G-90 hot-dipped galvanized steel shall be given a controlled chemical conversion treatment.

2.2.2 The material for TremLock system coatings shall be Fluoropon®, a full-strength 70% fluoropolymer (Kynar 500 or Hylar 5000) finish.

2.2.3 After preparation of the steel, the exposed exterior surface shall be precision coated with primer and Fluoropon color coat to a dry film thickness of 0.9 mil minimum.

2.2.4 Exposed interior surfaces shall be coated with polyester color coat.

Fluoropon® is a registered trademark of The Valspar Corporation.
Kynar 500® is a registered trademark of Elf Autochem North America, Inc.
Hylar 5000® is a registered trademark of Ausimont USA, Inc.
Galvalume® is a registered trademark of BIEC International, Inc.

2.2.5 All coatings to be applied to entire material dimension of steel sheet prior to forming of panels.

2.2.6 The physical characteristics of the exterior coating shall provide resistance to failure through cracking, checking, peeling or loss of adhesion by the following laboratory weather simulating tests:

- Humidity Resistance at 100 degrees F and 100% R.H. in accordance with ASTM D 2247
- Salt Spray Resistance at 5% Salt Fog per ASTM B 117.
- Reverse Impact Resistance in accordance with ASTM D 2794.
- Resistance to Accelerated Weathering - in an Atlas Model XW-R Dew Cycle Weather-Ometer in accordance with ASTM D 3361.
- Resistance to Dry Heat.
- Abrasion Resistance in accordance with ASTM D 968.
- Pollution Resistance in accordance with ASTM D 1308 using 10% hydrochloric acid.

2.2.7 Gloss of finish shall be maintained evenly over entire surface in accordance with ASTM D 523, 85 degree geometry.

2.2.8 Contact Tremco Incorporated for warranty details.

2.3 Roof Deck

2.3.1 Wood deck to be a minimum nominal 5/8" thick exposure sheathing type C-D 40/20 plywood or wood deck to be OSB board.

2.3.2 Steel deck to be minimum 1 1/2" deep, Types A, B, F or N deck fabricated from 22 MSG yield strength to be minimum 33,000 psi.

2.4 Underlayment Before Roofing

2.4.1 Underlayment used between wood deck and roof panel for deck protection to be minimum 30 pound organic felt or Ice & Water Shield in accordance with ASTM D 1970. Sides overlapped per manufacturer's specifications.

3. SYSTEM DESIGN

3.1 All components of the TremLock SL roof panel system shall be designed in accordance with sound engineering methods and practices.

3.2 The TremLock SL panels shall be designed in accordance with AISI "Specifications for the design of light-gage, cold-formed steel structural members" or CAN/CSA-S136 "Cold-formed steel structural members," latest edition.

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- 3.3 The paneling and deck system and its attachments shall be designed to support all required roof loads.
- 3.4 The TremLock SL panel shall not be considered a safe work platform until panels have been attached at the eave and panel clips installed and completely secured to the decking or structural system.

4. SYSTEM INSTALLATION

- 4.1 The TremLock SL shall be installed over solid decking (wood or metal) with a minimum slope of 3:12.
- 4.2 When TremLock SL is installed over wood decking an underlayment of a minimum 30 pound organic felt shall be installed between the deck and the TremLock SL roof panels. Ice & Water Shield is to be installed at eave and valley locations in accordance with Tremco standard details.
- 4.3 The TremLock SL roof panels shall be attached to the supporting deck by means of a Galvanized - 40 grade .036 minimum panel clip. The clip shall occur at the panel major corrugations (and be spaced at a maximum 24" on center).
- 4.4 A sidelap panel sealant shall be factory applied.
- 4.5 The TremLock SL roof panel shall be one piece without endlaps for a maximum slope length of 45'.
- 4.6 The TremLock SL roof panel closure shall be a minimum 22 ga. coated steel "Z" and be minimum 12" long, continuous pieces that are attached to the roof panels with sealants and non-exposed fasteners.
- 4.7 All ridges, hips and flashings shall utilize sealants, closures and fasteners in accordance with Tremco standard details.
- 4.8 All eave panel connections shall have no exposed fasteners and be secured per SMACNA details
OR
All eave panel connections shall be secured with through fasteners per manufacturer's standard details.
- 4.9 Fasteners penetrating (exposed) the metal membrane at the following locations do not exceed the frequency listed:

Basic panel system	.0 per sq. ft.
Eave connections (Hem cond.)	.0 per lin. ft.
Eave connection (Through fastened)	.3 per lin. ft.
Gable connection (Hem cond.)	.0 Per lin. ft.
Gable connection (Through Fastened)	1 per lin. ft.
Valley connection (Hem cond.)	.0 per lin. ft.
Valley connection (Through fastened)	.6 per lin. ft.
Ridge system (Hem cond.)	.0 per lin. ft.
Ridge system (Through fastened)	.3 per lin. ft.
Parapet Wall (Parallel)	.1 per lin. ft.
Parapet Wall (Perpendicular)	1.5 per lin. ft.

5. FASTENERS

- 5.1 Connections of the TremLock SL roof panel to supporting deck shall be made with concealed clips.
- 5.2 Panel to panel connections shall be made with a "snapping" mechanism in the side lap of the male leg of the panel.

6. PROVISION OF EXPANSION/CONTRACTION

- 6.1 The fixed clip of the TremLock SL roof system shall provide for the expansion and contraction for a 50' maximum length of panel. This fixed clip shall provide attachment without detrimental effect on the roof panel when there is a + or - 100 degree F temperature differential between the interior structural deck of the building and the roof panels.

7. ENERGY CONSERVATION

7.1 Insulation Board (optional)

- 7.1.1 The insulation board shall be rigid glass fiber reinforced polyisocyanurate foam plastic core, 6" maximum thickness (as specified) and covered with unpainted aluminum facing both sides.
- 7.1.2 Insulation board shall be one of the following and the ASTM standards to which each must conform.

Glass fiber board roof insulation	. . .C-726/E-84
Polystyrene board roof insulationC-578
Polyisocyanurate foam board(non-rated)
Polyurethane foam boardC-1013
Wood fiberboard roof insulationC-208
Composite board roof insulation	. . .(non-rated)