

TremLock SLOPE Framing

The TremLock SLOPE framing roof system is a versatile retrofit structural solution designed to enable the efficient installation of two standing seam roof systems over an existing flat roof or one with minimal existing slope. The TremLock LSP roof is a structural standing seam roof system designed for low slope applications starting at 1/4:12. The system also accommodates the TremLock VP versatile structural standing seam architectural roof system designed for higher slope applications.

The TremLock SLOPE framing roof system is designed to be installed over any flat BUR or membrane roof having a substrate of metal, wood or concrete. The SLOPE framing system is an assembly of quality components assembled in the field to achieve the desired slope. Field cutting vertical components allows the contractor to make adjustments due to inconsistencies in the existing roof surface.

Roof Panels:

The retrofit SLOPE framing system is designed to interface with either the TremLock LSP standing seam roof system or TremLock VP standing seam roof system. Both roof systems carry a UL-90 uplift, CEGS 07416 and ASTM E330 modified certifications.

Finish/Color:

Prepainted – hot rolled coil applied structural primer meeting or exceeding the requirements of Federal Specification. TT-P-636D, TT-P-664D and Steel Structures Painting Council SSPC-25.

Prime Painted – Single coat structural primer 1.0 to 2.0 mils thick applied to a surface meeting or exceeding SSPC-SP3.

G-90 – A galvanized hot dip finish meeting or exceeding the requirements of ASTM A446 and A525.

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PART 1 GENERAL INFORMATION

Drawings and general provisions of the Contract, including general and supplementary conditions and Division 1 specifications, apply to work specified in this section.

1.01 DESCRIPTION OF WORK

A. The Tremco Slope Framing System is designed to be installed over any existing roof having a substrate of metal, wood, concrete or other supporting material. The Slope Framing System is an assembly of quality component and assembled in the field to achieve the desired slope. Field-cutting vertical members allows the contractor to make adjustments in the field due to inconsistencies in the existing roof surface. All materials manufactured and purchased by Tremco are of first quality. To insure quality, all materials and parts must meet rigid material and performance specifications.

1.02 SYSTEM COMPONENTS

A. Base Members of the Slope Framing System

1. A base clip meeting or exceeding the requirements of ASTM A572
- OR
2. A pre-painted steel base Z-purlin, 0.060 x 3", 4" or 6" in height meeting or exceeding the requirements of ASTM A570.

B. Vertical Members

1. A 2-1/2" x 2-1/2" steel c-section with a G-90 galvanized coating. The C-section shall be offered in 16-gauge (50 ksi) and 14-gauge (50 ksi) meeting or exceeding the requirements of ASTM A446

OR

2. A 2" x 2" x .188 (36 ksi) prime painted structural tube meeting or exceeding the requirements of ASTM A501.

C. Upper Members shall be a pre-painted Z-purlin, 0.060 x 3", 4" or 6" in height, with both flanges broke parallel with the roof slope. The Z-purlin shall be pre-painted steel, 60 ksi, meeting or exceeding the requirements of ASTM A570. These members are designed to be placed at a maximum spacing of 5'0" o.c.

D. Bracing

1. Horizontal Bracing shall be a .060 x 1-1/4" x 1-1/4" 60 ksi pre-painted steel angle which meets or exceeds the requirements of ASTM A570.

2. Longitudinal and Transverse "X"-bracing shall be galvanized G-60 steel strapping 1-1/4" wide and .045" minimum (30 ksi) uncoated thickness. This strapping meets or exceeds the requirements of ASTM D3953.

E. Structural connections shall be made using a 5/16" x 1" self-drilling screw. Due to variable site conditions, Tremco shall not be responsible for the connection of the Slope Framing System to the existing structure. A Professional Structural Engineer should determine the size and population of fasteners to be used for this application.

1.03 DESIGN INFORMATION

1. The recommended slope range of the Slope Framing System is 1/4:12 inches through 6-1/2:12 inches.
2. Maximum height of the Slope Framing System above the existing roof plane shall be 15'-0".
3. The Slope Framing System has been designed in accordance with the latest edition of the AISI, the AISC and in accordance with reliable engineering methods and practices.
4. The required design loads (dead, live, snow and wind) shall be applied to the Slope Framing System. The system will transfer these loads to the existing structure. This load transfer will result in concentrated loads being applied to the existing structure. Tremco will not be held responsible for the structural integrity of the existing structure due to the additional dead load of the new roof system over the existing structure. A professional structural engineer should review the existing structure to determine the structural integrity.
5. The Slope Framing System, in most cases, requires a 3" minimum layer of vinyl backed blanket insulation to be used between the roof panel and the retrofit Z-purlin to control condensation and dampen roof vibration and noise. Also it is recommended that the newly created attic space be properly vented to allow any moisture to escape and the existing roof to dry properly.

1.04 ROOF PANELS

The Slope Framing System is designed to interface with either the Tremco TremLock™ LSP Standing Seam Roof System or the TremLock VP Architectural Standing Seam Roof System. Both roof systems carry UL-Class 90, CEGS 07416 and Factory Mutual wind uplift ratings.

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1.05 FINISHES

Below is a list of finish descriptions referred to in this document.

1. Prepainted - Hot rolled coil-applied structural primer meeting or exceeding the requirements of Federal Specification. TT-P-636D, TT-P-664C and Steel Structures Painting Council SSPC-25.
2. Prime Painted - Single coat structural primer 1.0 to 2.0 mils thick applied to a surface meeting or exceeding SSPC-SP3.
3. G-90 - A galvanized hot dip finish meeting or exceeding the requirements of ASTM A446 and A525.