

TremLock™ SLOPE

Framing Roof System

COMPOSITION AND MATERIAL

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 architectural roof system designed for higher slope applications.

BASIC USE:

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 in the field allows the contractor to make adjustments in the field do to inconsistencies in the existing roof surface.

SYSTEM DESIGN:

The recommended slope range of this system is 1/4":12 through 6 1/2":12. Maximum height of the Slope Framing Roof System above the existing roof plane shall be 15'. The Slope Framing Roof System has been designed in accordance with the 1986 American Iron and Steel Institute (AIS), the 9th Edition of the American Institute for Steel Construction (AISC), and in accordance with reliable engineering methods and practices.

The design loads (uniform and concentrated, gravity and wind) shall be applied to the Retrofit 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 do to the additional load of the System into the existing structure. A professional Structural Engineer should review the existing structure to determine the structural integrity.

The Tremco Slope Framing Roof System requires that a 3" minimum layer of blanket insulation be used between the roof panel and the retrofit 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 trapped moisture to escape and the existing roof to dry properly.

SYSTEM COMPONENTS:

Base members of the Slope Framing System shall be (1) a base clip meeting or exceeding the requirements of ASTM A572. Or (2) a prepainted base spanning

purlin, 0.060" x 3", 4", or 6" in height meeting or exceeding the requirements of ASTM A570. Vertical members of the Slope Framing System shall be (1) a 2 1/2" x 2 1/2" C- section with a G-90 galvanized coating. The C- section shall be 18 gage (33ksi), 16 gage (50 ksi), or 12 gage (50 ksi) thickness 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 for heavy load conditions.

Upper members of the Slope Framing System shall be a 0.060 x 3", 4", or 6" purlins with both flanges broke parallel to the roof slope. The purlin shall be prepainted steel 55 ksi meeting or exceeding the requirements of ASTM A570. These members are designed to be placed at a maximum spacing of 5" O.C.

The Horizontal Bracing shall be a .060 x 1 1/4" x 1 1/4" prepainted angle which meets or exceeds the requirements of ASTM A570.

The Longitudinal and Transverse X-bracing shall be prepunched zinc (wax coating) strapping 1 1/4" width and .031" thickness. This strapping meets or exceeds the requirements of ASTM D3953 and Federal Specification QQ5781(1).

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

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, CECS 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 Structural 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.

APPLICATION DATA:

Attachment of the Slope Framing System to the existing structure can be achieved in one of three ways. Base clips can be used if existing roof deck is concrete. The base clip can be used on other applications such as beams or joists if existing structure has an engineering review and can support the additional concentrated load.

Base Z-purlins parallel to top Z-purlins are used when existing secondary structural members run perpendicular to the NEW eave. (Parallel installation) Base Z-purlins perpendicular to top Z-purlins are used when existing secondary structural members run parallel to the NEW eave (perpendicular installation) Base spanning Z-purlins are in three standard web depths 3", 4" and 6" and are 15'-0" coverage. The purlins are installed perpendicular to the existing roof structural members. The attachment of the new purlins to these structural members is the responsibility of the installation contractor. The purlin to purlin connections are made with a mechanically fastened lap splice.

Base purlins can often be installed directly over an existing roof system with little preparatory work. This works well with aging single-ply membrane roof systems. However, the aggregate on an asphalt or coal tar pitch built-up roof is generally removed with a power broom before installing the new structural system.

AVAILABILITY AND COST:

Contact your local Tremco Roofing Representative for pricing and availability. For the name and number of your local representative, call the Roofing Division at 216/292-5000.

MAINTENANCE:

Your local Tremco Roofing Representative can provide you with effective maintenance procedures, which may vary depending upon specific conditions. Periodic inspections, early repairs and preventive maintenance are all part of a sound roof program.

GUARANTEE/WARRANTY:

Tremco Incorporated warrants TremLock Slope Framing metal roof system to be free of defects and to meet published physical properties when tested

according to ASTM and Tremco standards. Under warranty, any TremLock Slope Framing product that is proved to be defective when applied in accordance to our written instructions, and in applications recommended by Tremco as suitable for this product will be replaced with like product at no charge. THIS IS BUYER'S SOLE AND EXCLUSIVE REMEDY.

All claims concerning product defects must be made in writing within twelve (12) months of shipment. The absence of such claims in writing during this period will constitute a waiver of all claims with respect to such product.

This warranty shall be IN LIEU of any other warranty, express or implied, including but not limited to, any implied warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

TECHNICAL SERVICES:

Your local Tremco Representative, working with the Technical Service staff, can help analyze conditions and needs to develop recommendations for special applications. The services of the Tremco Research Center, which has earned a unique reputation in weatherproofing technology, complement and extend the services of the Tremco Technical Service Staff.

STATEMENT OF POLICY AND RESPONSIBILITY:

Tremco takes responsibility for furnishing quality materials and for providing specifications and recommendations for their proper installation.

As neither Tremco itself or its Representatives practice architecture or engineering, Tremco offers no opinion on, expressly disclaims any responsibility for the soundness of any structure on which its products may be applied. If questions arise as to the soundness of a structure or its ability to support a planned installation properly, the Owner should obtain the opinion of competent structural engineers before proceeding. Tremco accepts no liability for any structural failure or for the resultant damages, and no Tremco Representative is authorized to vary this disclaimer.



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