

SPECIFICATIONS

Bur On Wood & Plywood Deck

General

On nailable decks, a 3-ply membrane constructed with a mechanically attached fiberglass base sheet and two plies of fiberglass felt mopped to the base sheet in shingle fashion. This is covered with Lightguard Ballasted Roof Insulation. The mechanical fasteners will be those recommended for this type of deck, and in the pattern specified. All installations of the Lightguard system must be in accordance with current specifications approved by T. Clear, installed by a T. Clear approved contractor, and will be covered by a warranty from Clear.

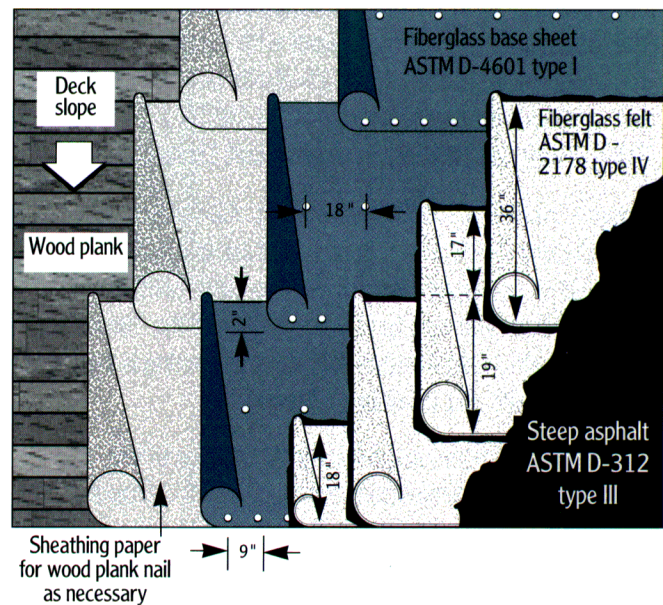
Deck Condition

The erection and design properties for performance of the deck are not the responsibility of T. Clear Corporation and should be in accordance with applicable regulatory agency requirements and industry standards.

The wood or plywood deck must be properly attached to supporting members and must be of sufficient thickness to prevent excessive deflection between supporting members. Wood roof decks shall consist of well-seasoned lumber, edges of which shall be tongued and grooved, ship-lapped or splined to prevent differential flexing of the boards. Any significant voids shall be covered with sheet metal.

Deck Slope Requirements

Roofs must be designed and constructed to drain water within 48 hours after a rain. A 1/4" per foot slope is recommended. "Dead level" decks of this construction are



acceptable with a sufficient number of correctly placed drains. Where a negative slope exists, consideration may be given to increasing the thickness of the insulation over the membrane to displace water. The drain body must be recessed into the deck so that the clamping ring is flush with or below the deck surface. Sumps are recommended.

The maximum slope that will be covered by Lightguard roof insulation systems is 2 inches per foot and requires the use of ASTM D 312-89, type III asphalt. (Note: Type III asphalt is the preferred asphalt for all slopes.) ASTM D 312-89, type II asphalt may be used for slopes not to exceed 1 inch per foot. ASTM D 312-89, type I may be used for slopes not to exceed 1/2" per foot when covered with a minimum 6 mil polyethylene sheet to completely cover the asphalt so as not to come in contact with the Lightguard panel.

Built-Up Roof Installation

Sweep the deck free of dust and debris.

Cover the deck with sheathing paper weighing approximately 5 lbs. per 100 square feet where necessary. Lap each sheet a minimum of 2" and mechanically attach to deck sufficiently to hold in place. Sheathing paper may be omitted for plywood decks.

Starting at the low point of the roof, lay one ply of fiberglass base sheet, ASTM D-4897, type II non perforated, lapping the side joints 2" and the end joints 4". Mechanically fasten along the laps at maximum 9" intervals and at the center of the sheet at 18" intervals using fasteners approved by the deck manufacturer for use in this application. Uniformly mop the attached fiberglass base sheet with steep asphalt (ASTM D-312, type III) at the rate of 25-30 lb. per square. While hot, embed two plies of fiberglass felt (ASTM D2178, type IV) in shingle fashion, lapping each sheet 19 inches.

Interply moppings shall be continuous. Complete embedment of felts is required and accomplished by dragging a broom or squeegee over the felt, no more pressure is required than that exerted by the weight of the "brooming" utensil. During cold weather, effective brooming is essential to eliminate voids and to assure adhesion.

As the work progresses, full mop the surface of the membrane using a minimum coverage of 25-30 pounds per square of ASTM D-312, type III asphalt. Felt should never be exposed overnight or in inclement weather. Bitumen temperature at the kettle shall be controlled so as to not exceed the bitumen manufacturer's recommendations.

It is not acceptable to include any temporary membrane as a part of a completed membrane. Install completed membrane in final form on a day-to-day basis. If the slope of the deck is such that water might flow under the fastened fiberglass felt, temporary water cut-offs are necessary at the end of the workday. Water cut-offs must be removed prior to continuing the membrane application.

Flashing Installation

Flashings should be of granule surfaced modified bitumen sheet adhered with ASTM D 312-89, type III asphalt or torch applied. All flashing must be completed in each area prior to installing Lightguard Ballasted Roof Insulation. Conform to details shown in architectural drawings, and install according to T. Clear flashing specifications. Non granule surfaced modified bitumen sheets may be used but require periodic maintenance due to weathering that is not included in the T. Clear warranty.

Other Relevant T. Clear Specifications

For installation of Lightguard Ballasted Roof Insulation panels, see:

1. Lightguard installation, wind design, and securement specifications (LIDS 1993)
2. Lightguard flashing details (LFD 1993)
3. Lightguard roofing specifications for coal tar pitch bitumen membranes (CTPM 1993)

Fire Classification Information For Lightguard Roof Assemblies

1. All Lightguard assemblies are considered as ballasted systems with respect to Factory Mutual (F.M.). Refer to the current F.M. data sheet 1-29.
2. All Lightguard roof assemblies are rated Class A. (fire from without). Obtain specific configuration details from Underwriter's Laboratory (U.L.) from the current roofing materials and Systems Directory.
3. For information on hourly rated constructions (fire from within) see the current U.L. Fire Resistance Directory.



P.O. Box 416
Hamilton, Ohio 45012
1-800-544-7398

NOTICE: T. CLEAR CORP. believes the information and recommendations herein to be accurate and reliable as of November 1990. However, since any assistance furnished by T. CLEAR CORP. with reference to the proper use and disposal of its products is provided without charge, and since use conditions and disposal are not within its control, T. CLEAR CORP. assumes no obligation or liability for such assistance and does not guarantee results from use of such products or other information herein; no warranty, express or implied, is given nor is freedom from any patent owned by T. CLEAR CORP. or others to be inferred. Information herein concerning laws and regulations is based on U. S. federal laws and regulations except where specific reference is made to those of other jurisdictions. Since use conditions and governmental regulations may differ from one location to another and may change with time, it is the Buyer's responsibility to determine whether T. CLEAR CORP.'S products are appropriate for Buyer's use, and to assure Buyer's workplace and disposal practices are in compliance with laws, regulations, ordinances, and other governmental enactments applicable in the jurisdiction(s) having authority over Buyer's operations.