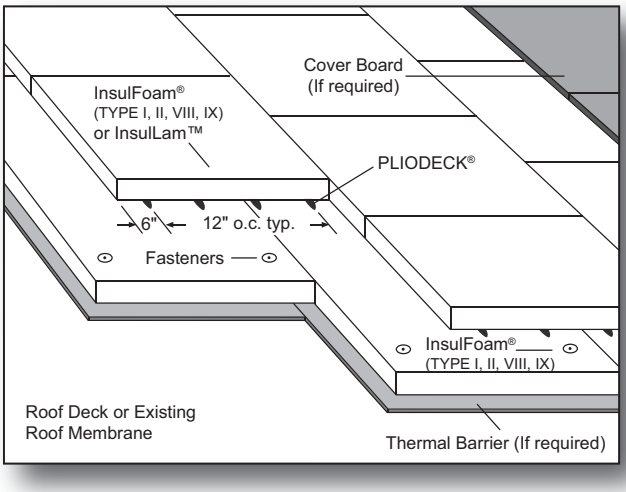
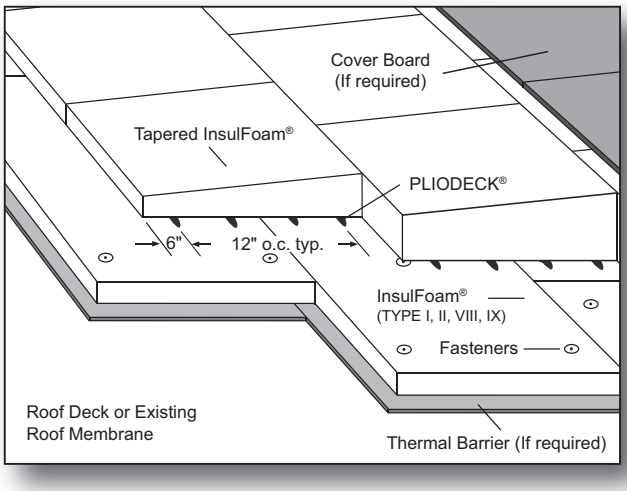
DOUBLE LAYER – ALTERNATE

1st Layer Mechanically Attached; 2nd Layer Adhered with PLIODECK®

Flat Insulation



Tapered Insulation



General

This specification is intended for use over any substrate suitable to receive and support a mechanically attached insulation roof assembly and subsequent roof membrane. It is provided to serve as a guideline for designers and installers.

PLIODECK Insulation Adhesive is offered by Ashland, Inc. Refer to Ashland's InfoTech™ literature for additional information on storage, handling and use of PLIODECK Insulation Adhesive.

Installation Considerations

- For optimum results, install materials when conditions, (temperature, humidity and ventilation) are within the limits recommended by Ashland, Inc. Do not install products under conditions outside the adhesive manufacturer's limits.
- PLIODECK Insulation Adhesive should be applied when air and surface temperatures are 40 °F and rising.
- The PLIODECK Insulation Adhesive should be stored in a dry area, out of direct sunlight, and at a temperature between 50 °F and 80 °F. It is recommended that the adhesive be stored at 70 °F prior to application in cold weather.
- Cans of PLIODECK must not be opened until time of use. Since exposure to moisture will cure the adhesive, use all product in opened containers immediately.
- When windy conditions exist, weights should be used to prevent the insulation boards from moving prior to the PLIODECK curing or setting.
- Applications over uneven substrates may require that the insulation boards be scored or slit to obtain full contact with the adhesive.
- InsulFoam insulations are shipped in plastic film wraps, which are intended for temporary protection during shipping. All material should be protected from the elements and stored in a dry location.
- Install only as much insulation as can be covered by a roof membrane system, and/or made watertight by the end of each day.
- Insulfoam insulations should not be exposed directly to solvent-based or petroleum-based adhesives and sealants.
- Allow approximately a 1/4" space between InsulFoam insulation and vertical surfaces or roof projections. Do not force or jam product into place.
- Review the layout of all Tapered InsulFoam systems before loading and installing panels.
- For re-cover applications, care should be taken to ensure that no moisture is trapped in the existing or new roof system.

InsulFoam insulations are compatible with most membrane systems; however, we recommend consultation with the membrane manufacturer for any limitations or approvals for use with their products.

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Insulation Specifications

InsulFoam	Tapered InsulFoam	InsulLam
Direct-to-Deck		
2DIM-IA	2DIM-TA	2DIM-LA
2DTM-IA		2DTM-LA
DensDeck Thermal Barrier		
2XIM-IA	2XIM-TA	2XIM-LA
2XTM-IA		2XTM-LA
Gypsum Thermal Barrier		
2GIM-IA	2GIM-TA	2GIM-LA
2GTM-IA		2GTM-LA
Perlite Thermal Barrier		
2PIM-IA	2PIM-TA	2PIM-LA
2PTM-IA		2PTM-LA

Thermal Barrier Installation (If required)

Some designs require the use of a thermal barrier between the insulation and occupied areas of the building. For guidance, consult local building codes, the membrane manufacturer and the Thermal Barrier information in the Insulfoam Roofing Manual.

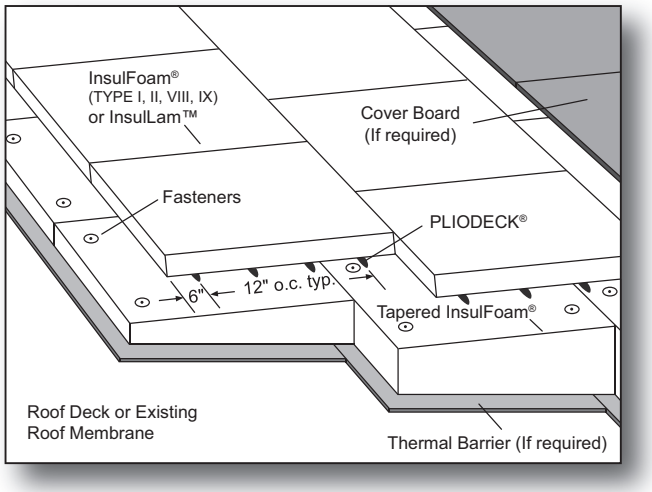
1st Layer – Mechanically Attached

Install InsulFoam insulation with continuous side joints and end joints, staggered so they are offset by a minimum of 12" from the end joints in adjacent rows. Insulation should abut tightly against adjacent boards. Joints greater than 1/2" should be filled with the same insulation that is being used in the field of the roof. If insulation is being installed over a thermal barrier or an existing layer of insulation, all joints must be offset a minimum of 6" between layers. Use an approved mechanical fastener of sufficient length to penetrate into or through the deck by the amount prescribed for the specific fastener. Fasteners should never be closer than 6" from the edges of the insulation board and should be placed in a pattern to achieve the desired approval. Use appropriate insulation plates with the fasteners. Care must be taken to avoid over-driving or under-driving the fastener and plate assembly. When installing InsulFoam insulations directly to a metal deck, the edges of the insulation parallel to the deck ribs must be solidly supported and centered on the ribs. Additionally, for metal deck installations, ensure that the insulation has a thickness that is adequate to span the rib openings. For acceptable minimum thicknesses of InsulFoam installed directly over metal decks, refer to the Roof Decks section in the Insulfoam Roofing Manual.

2nd Layer – Adhered with PLIODECK

Surfaces to be bonded together must be free of dirt, debris and other contaminants.

Flat Insulation – Alternate



Board size should be limited to 4' x 4' when using this attachment method. Insulation side joints are to be continuous, and end joints staggered a minimum of 12". Joints greater than 1/2" should be filled with the same insulation that is being used in the field of the roof. If InsulFoam is being installed over a thermal barrier, an existing layer of insulation, or under a cover board, all joints must be offset a minimum of 6" between layers.

At the time of use, unscrew the cap on PLIODECK cans, remove moisture seal and attach plastic pour spouts. Mount cans to the PLIODECK applicator cart and secure tightly. If cart-mounting plates do not fit securely against cans, use pliers or channel locks to align plates properly. Adjust cans to apply adhesive beads 12" on center in the field of the roof and 6" on center on the perimeter, with the outside beads placed 6" in from edge of board line. Punch a vent hole in the cans with an awl. Flip the tilting lever up to begin applying adhesive to the deck. Pace the cart speed to apply a 3/8" to 1/2" bead. In colder temperatures, adhesive will be thicker and pour more slowly. Spouts are designed for summer application, and in cooler weather, cart pace may be increased by cutting larger openings in the spout. Cart may be pulled or pushed. Place cart lever in the down position to stop the flow of adhesive.

InsulFoam insulation must be installed as soon as adhesive beads have been applied to substrate. In 5 to 15 minutes, the adhesive will change to a cream color and begin to foam. The InsulFoam insulation may rise slightly as a result of this foaming, and is to be walked-in to ensure contact with the substrate. Repeat this process as needed to ensure a smooth insulation surface for membrane application. In cases of high moisture content and/or warped or cupped boards, it may be necessary to repeat this step several times. For warped or cupped boards, a weight should be applied to the board until the adhesive has set. It is not unusual for the adhesive to foam up through the joints of the boards. Excess foam may be trimmed away after the adhesive has set.

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A roofing membrane may be applied as soon as the boards have become firmly attached to the substrate, typically after 15 to 30 minutes. Times will vary with ambient temperatures and moisture conditions. Application rates can vary. Contact Ashland, Inc. or Factory Mutual for additional information on perimeter and corner attachment requirements.

Cover Board Installation (If required)

Some specifications require the use of a cover board. Cover boards may be adhered with PLIODECK or asphalt to InsulFoam and Tapered InsulFoam that has been adhered with PLIODECK. For cover board installation procedures, refer to the Cover Board Specification information in the Insulfoam Roofing Manual.

When cover boards are used in conjunction with this specification, the insulation specification would be modified with a two-letter suffix to identify the cover board type and attachment method. Refer to the Cover Board Specification information.