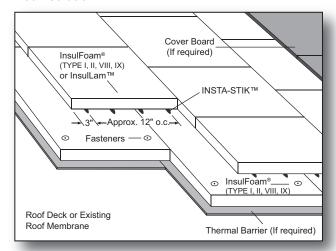
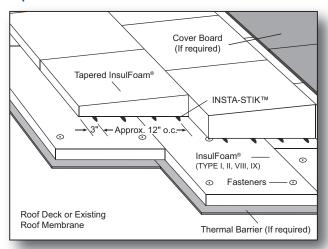
## 1<sup>st</sup> Layer Mechanically Attached; 2<sup>nd</sup> Layer Adhered with INSTA-STIK™

#### **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.

INSTA-STIK™ Quik Set Commercial Roofing Adhesive is offered by The Dow Chemical Company (Dow). Refer to Dow Installation Procedures and Dow literature for additional information on storage, handling and use of INSTA-STIK Quik Set Commercial Roofing Adhesive.

### **Installation Considerations**

- Acceptable INSTA-STIK substrates are smooth and gravel surfaced Class 1 built-up roofs, concrete, wood, and minimum 22-gauge metal decks, and vapor retarders approved by The Dow Chemical Company. Please contact Dow at 866-583-BLUE for compatibility questions or concerns.
- For optimum results, install materials when conditions, (temperature, humidity and ventilation) are within the limits recommended by Dow. Do not install products under conditions outside the adhesive manufacturer's limits.
- INSTA-STIK is not approved for application when surface or ambient temperatures are below 33 °F or above 110 °F.
- INSTA-STIK is not approved for use during inclement weather.
- INSTA-STIK is not approved for use on surfaces or decks that are wet or have standing water, frost, ice or snow.
- INSTA-STIK is packaged in a single container that should be stored between 50 °F and 75 °F. The ideal chemical temperature at the time of application is 75 °F.
- When windy conditions exist, weights should be used to prevent the insulation boards from moving prior to the INSTA-STIK 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 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.

## 1st Layer Mechanically Attached; 2nd Layer Adhered with INSTA-STIK™

## **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.

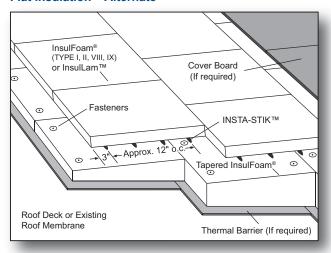
# 1st Layer - Mechanically Attached

Install InsulFoam insulation with continuous side joints and end joints staggered so that 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.

## 2<sup>nd</sup> Layer – Adhered with INSTA-STIK

Before dispensing INSTA-STIK, the applicator must observe the following precautions: wear protective clothing, work gloves and protective eyewear.

#### Flat Insulation - Alternate



All surfaces must be free of any debris, dirt, dust, grease, oil, diesel fuel and standing water before INSTA-STIK is applied.

Board size can be up to 4' x 8' 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. All joints must be offset a minimum of 6" between layers.

INSTA-STIK should be mixed prior to use by firmly holding the container on its side and agitating the contents, using a side-to-side motion for at least 15 seconds.

The dispensing wand kit is ideal for roof decks with many penetrations. Attach the dispensing hose swivel end to the cylinder valve. Tighten the connection using an open-end wrench, being careful not to over-tighten. Verify that the on/off valve on the dispensing hose is closed. The handle should be perpendicular to the valve. Attach the dispensing wand kit to the on/off valve by screwing in until it is hand-tight.

The INSTA-STIK Multi-Bead Applicator (MBA) is recommended for roof decks with open areas. The INSTA-STIK MBA uses three tanks of INSTA-STIK Quik Set Commercial Roofing Adhesive. The tanks are connected by a hose to a central inlet manifold. The INSTA-STIK MBA is rolled backward along the roof deck, as four to eight beads of adhesive flow from the center outlet tubes in a precise pattern that can be adjusted per roofing requirements. The INSTA-STIK MBA also features an ancillary manifold that can be used near the roof edge to add three interspaced beads to the pattern.

Dispense a minimum of 1 lineal foot of 3/4"-1" diameter bead of INSTA-STIK for every square foot of insulation board to be attached. A picture of a 3/4" bead is provided in the Dow operating instructions as a guide for proper bead size.

Use a parapet wall or gutter as a straight edge guide when dispensing the first bead of INSTA-STIK. Under the normal application rate, place the first bead 3" inside the outside edge of the insulation to be attached. Apply 3 additional parallel beads approximately 12" apart, so that the fourth bead is 3"

1<sup>st</sup> Layer Mechanically Attached; 2<sup>nd</sup> Layer Adhered with INSTA-STIK™

inside the opposite edge of the insulation board. The result is 4 equidistant parallel beads insulation board (1 lineal foot of adhesive per 1 sq. ft. of insulation). When using the MBA, open the valves to dispense 4 beads of INSTA-STIK.

The application rate can vary with roof system configuration. Additional adhesive is required around all roof penetrations and drains. An increased amount of INSTA-STIK may be required at the perimeter band of the roof, depending on the building and parapet wall heights. For application rates, refer to Table 1 in Dow's Installation Procedures for INSTA-STIK Quik Set Commercial Roofing Adhesive.

**IMPORTANT:** When applying INSTA-STIK, the insulation boards must be placed onto the INSTA-STIK beads before tack-free (2 to 8 minutes depending on humidity). Walk on the boards to spread the beads for maximum contact. Continue to walk on the insulation boards every 3 to 4 minutes until the insulation in firmly attached, usually within 10 to 20 minutes. Low humidity conditions will require longer cure times.

## **Cover Board Installation (If required)**

Some specifications require the use of a cover board. Cover boards may be adhered with INSTA-STIK or asphalt to Insul-Foam and Tapered InsulFoam that has been adhered with INSTA-STIK. 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.