

**Dow Building Solutions**

roofs

walls

slabs

foundations

INSTALLATION PROCEDURES FOR INSTA STIK™ Quik Set Commercial Roofing Adhesive

INSTA STIK™ Quik Set Commercial Roofing Adhesive is a single-component polyurethane adhesive. It is dispensed from a portable disposable pre-pressurized container requiring no external power source. INSTA STIK Quik Set is available in a 30 lb unit (23 lb net chemical weight).

INSTA STIK Quik Set is used to attach compatible roof insulation boards to roof decks and substrates in new roof and roof replacement applications, including insulation board to insulation board, insulation board to Class I graveled and non-graveled (bald) built-up roofs for recover applications, and insulation or gypsum board to 22 gauge and thicker steel decks and wood decks.

General Information

The ideal chemical temperature at the time of application should be 75°F (24°C). The minimum ambient and surface temperatures must be 33°F (0.55°C) and rising. INSTA STIK™ Quik Set is packaged in a single container that should be stored between 50°F and 75°F (10°C and 24°C). At these temperatures, the shelf life is 15 months from the date of manufacture.

Safety

Before dispensing INSTA STIK™ Quik Set, the applicator must observe the following precautions: Wear protective clothing, work gloves and protective eyewear, and provide adequate ventilation or respiratory protection.

Surface Preparation

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

RECOVER OVER (BUR)

A licensed INSTA STIK™ Quik Set instructor, authorized to perform adhesion tests, must be on site prior to the commencement of the project to determine compatibility. Contact Dow at 1-866-583-BLUE (2583) at least 14 days in advance for further instructions.

STEEL DECK

On new steel, the residual shop oil coating must be removed using TSP, acetone, naphtha or comparable cleanser.

Insulation

Polyisocyanurate insulation boards cannot exceed 4' x 4' (1.2 m x 1.2 m). All other boards may be installed up to a 4' x 8' (1.2 m x 2.4 m) size. In multiple layers of insulation, the staggered joint method should be used to eliminate thermal breaks.

Product and Equipment Installation

The INSTA STIK™ Quik Set complete kit includes a steel tank, a 4' (1.2 m) flexible dispensing hose, two PVC dispensing wands, a 1/4" (6.4 mm) coupler, 9/16" (14 mm) wrench and a flare-tipped nozzle. The tank can also be purchased separately.

INSTA STIK Quik Set should be shaken prior to use. Firmly hold the container on its side and agitate the contents using a side-to-side motion for at least 15 seconds. Attach the swivel hose fitting on the end of the dispensing hose to the threaded port of the cylinder valve. Once it is seated properly, tighten securely using an open-end wrench (supplied). Verify that the on/off valve is attached to the dispensing hose and is in the off position.

Attach either end of the threaded wand to the dispensing hose on/off valve. Tighten securely. Attach the coupler to the exposed end of the wand. Attach the second plastic wand to the coupler. Tighten securely. If desired, screw the flare-tipped nozzle provided onto the exposed end of the dispensing wand. The flare-tipped nozzle is ideal for use on fluted metal decks.

Slowly open the valve at the top of the cylinder 1/2 to 1 revolution. Open further if higher velocity is desired. Check for leaks. If there are no leaks, INSTA STIK Quik Set is ready for use.

Typical Field Application Rate

Use a parapet wall or gutter as a straight edge guide when dispensing the first bead of INSTA STIK™ Quik Set. Dispense a minimum of 1 lineal foot (30.5 cm) of 3/4" - 1" (19.1 mm - 25.4 mm) diameter bead of INSTA STIK Quik Set for every square foot (30.5 cm²) of insulation board to be attached. Place the first bead of INSTA STIK Quik Set 3" (76 mm) inside the outside edge of the 4' (1.2 m) wide insulation board to be attached. Apply three additional parallel beads approximately 14" (35.6 cm) apart so that the fourth bead is 3" (76 mm) inside the opposite edge of the insulation board.

The application rate is dependent upon building height, building configuration and geographical wind zone. Contact Dow at 1-866-583-BLUE (2583) to determine recommended application rates.

IMPORTANT: When applying INSTA STIK Quik Set, the insulation boards must be placed onto the INSTA STIK Quik Set 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 is firmly attached, usually within 10 to 20 minutes. Low humidity conditions will require longer cure time.

ROOF PENETRATIONS/ DRAINS

A 3/4" - 1" (19.1 mm - 25.4 mm) diameter bead of INSTA STIK™ Quik Set is required around all roof penetrations and drains.

STEEL DECK APPLICATIONS

With the edge of the insulation board centered over an upper flange under normal application rate, apply a 3/4" - 1" (19.1 mm - 25.4 mm) diameter bead of INSTA STIK™ Quik Set on the first upper flange nearest the edge of the insulation board. Continue to apply 3/4" - 1" (19.1 mm - 25.4 mm) beads on the upper flange as specified. Contact Dow to determine recommended application rates.

Determining Application Rates

Application rates are determined by following FM 1-28 and FM 1-29 guidelines as described below. Use the following criteria as a guideline in determining application rates for INSTA STIK™ Quik Set. For further assistance, consult Factory Mutual 1-28 and 1-29 data sheets.

- **Enclosed buildings** – A building is considered enclosed if it does not comply with the requirements for partially enclosed buildings listed below.
- **Partially enclosed buildings** – A building with a windward wall where the total area of openings exceeds the sum of all other wall and roof openings by more than 10 percent; and the total area of openings exceeds 4 ft² (0.27 m²) or 1 percent of the area of that wall, whichever is smaller, and the sum of all other wall and roof openings does not exceed 20 percent
- **Exposure "B," urban and suburban** – Wooded terrain, numerous adjoining obstructions, large city centers
- **Exposure "C," open terrain** – Country, grasslands, airports, shorelines in hurricane zones (wind speeds of 120 mph [193 kph] or greater)
- **Exposure "D," areas exposed to large bodies of water** – Coastal areas greater than or equal to 1 mile (1.6 km) wide, areas extended inland from shore 1500' (472 m) or 10 times the height of the building (whichever is greater); hurricane coasts where the wind speed is less than 100 mph (160 kph)

The contractor is required to complete an INSTA STIK™ Quik Set Pre-Job Qualification Form and submit it to Dow.

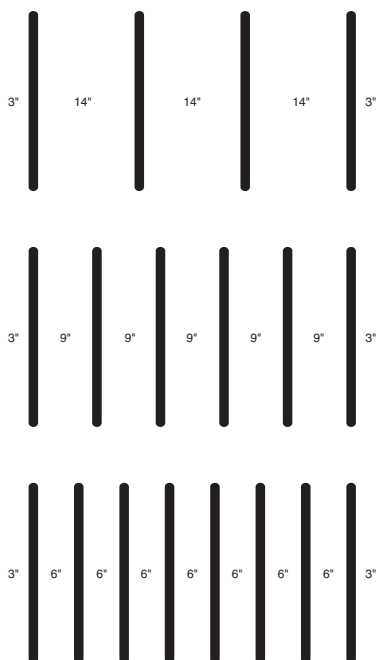
A representative will complete the calculations based on FM 1-28 and FM 1-29.

The contractor will need to determine the building exposure and the proper height with regard to the slope of the roof deck, as well as identifying surrounding terrain. For Exposure “B” job sites only, consult Table 1 for application

details. For all other exposures and wind design requirements, contact Dow at 1-866-583-BLUE (2583).

TABLE 1

Factory Mutual Design Pressure (psf)												
Exposure B Class 1-90 Rated Systems Enclosed Building $h \leq 60'$ $h/w \leq 1$ for $60' < h < 90'$ $q \geq 10^\circ$												
Mean Roof Height h (ft)	Basic Wind Speed, V (mph) Based on ASCE 7-98 (3-second gust)											
h (ft)	<85	90	100	110	120	130	140	145	150	160	170	185
Zone 1 (Field of roof)												
15	15.0	17.0	21.0	25.0	30.0	35.0	41.0	43.0	47.0	53.0	60.0	71.0
30	15.0	17.0	21.0	25.0	30.0	35.0	41.0	43.0	47.0	53.0	60.0	71.0
60	18.0	20.0	25.0	31.0	36.0	43.0	49.0	53.0	57.0	65.0	73.0	86.0
89	20.0	23.0	28.0	34.0	41.0	48.0	55.0	60.0	64.0	72.0	82.0	97.0
Zone 2 (Perimeter of roof)												
15	25.2	28.6	35.3	42.0	50.4	58.8	68.9	72.2	79.0	89.0	100.8	119.3
30	25.2	28.6	35.3	42.0	50.4	58.8	68.9	72.2	79.0	89.0	100.8	119.3
60	30.2	33.6	42.0	52.1	60.5	72.2	82.3	89.0	95.8	109.2	122.6	144.5
89	33.6	38.6	47.0	57.1	68.9	80.6	92.4	100.8	107.5	121.0	137.8	163.0
Zone 3 (Corner of roof)												
15	38.0	43.0	53.1	63.3	75.9	88.5	103.7	108.8	118.9	134.1	151.8	179.6
30	38.0	43.0	53.1	63.3	75.9	88.5	103.7	108.8	118.9	134.1	151.8	179.6
60	45.5	50.6	63.3	78.4	91.1	108.8	124.0	134.1	144.2	164.4	184.7	217.6
89	50.6	58.2	70.8	86.0	103.7	121.4	139.1	151.8	161.9	182.2	207.5	245.4



Light Gray Areas (<45 psf):

Standard application rate – Place the first bead of INSTA STIK™ Quik Set 3" (76 mm) inside the outside edge of the 4' (1.2 m) wide insulation board to be attached. Apply three additional parallel beads approximately 14" (356 mm) apart so that the fourth bead is 3" (76 mm) inside the opposite edge of the insulation board.

Dark Blue Areas (<67.5 psf):

Standard application rate – Place the first bead of INSTA STIK™ Quik Set 3" (76 mm) inside the outside edge of the 4' (1.2 m) wide insulation board to be attached. Apply five additional parallel beads approximately 9" (305 mm) apart so that the sixth bead is 3" (76 mm) inside the opposite edge of the insulation board.

Light Blue Areas (<90 psf):

Standard application rate – Place the first bead of INSTA STIK™ Quik Set 3" (76 mm) inside the outside edge of the 4' (1.2 m) wide insulation board to be attached. Apply seven additional parallel beads approximately 6" (152 mm) apart so that the eighth bead is 3" (76 mm) inside the opposite edge of the insulation board.

Dark Gray Areas:

NOT APPLICABLE (>90 psf); will not meet Class 1-90.

Note – Please check with Dow to verify if your roofing system configuration has been tested by Factory Mutual (FM).

IN THE U.S.:

- For Technical Information: **1-866-583-BLUE (2583)**
- For Sales Information: **1-800-232-2436**

THE DOW CHEMICAL COMPANY

- Dow Building Solutions • 200 Larkin • Midland, MI 48674
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IN CANADA:

- For Technical Information: **1-866-583-BLUE (2583)** (English); **1-800-363-6210** (French)
- For Sales Information: **1-800-232-2436** (English); **1-800-565-1255** (French)

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INSTA STIK™ Quik Set Commercial Roofing Adhesive contains chemicals that require the use of gloves, glasses and adequate ventilation or respiratory protection. Please read the warnings and instructions on the can and the Material Safety Data Sheet carefully before using. INSTA STIK Quik Set Adhesive should be stored away from heat sources.

Building and/or construction practices unrelated to building materials could greatly affect moisture and the potential for mold formation. No material supplier including Dow can give assurance that mold will not develop in any specific system.

