



Building Solutions



# INSTA-STIK ROOFING

Adhesive for insulating and waterproofing flat roofs.

# INSTA-STIK ROOFING

INSTA-STIK™ ROOFING is a polyurethane adhesive which has been specially formulated for bonding insulation boards and synthetic waterproofing membranes to flat roofs. Supplied in a portable, pressurised cylinder, INSTA-STIK™ is applied cold, offering a number of distinct advantages over alternative fixing systems. It does not contain strong solvents, making it compatible with the majority of roofing materials. It bonds significantly faster than conventional polyurethane adhesives saving time and money on site. INSTA-STIK™ is perfect for:

- »» Adhering compatible insulation boards to a wide range of flat roofs and substrates
- »» Adhering insulation boards to a wide range of other insulation boards
- »» Adhering compatible manufacturers' approved synthetic waterproofing membranes to flat roofs and a wide variety of substrates.

## INSTA-STIK™ STD, MBA, SPRAY

INSTA-STIK™ is available in 3 versions with the following features:

- 1 (STD)** - Applied in beads with a hose and wand dispensing accessory. Easy to use. Fits all roof configurations.
- 2 (MBA)** - Applied with a Multi Bead Applicator trolley to reduce application time. Recommended for large roof areas.
- 3 (SPRAY)** - Applied with a spray gun for full face bonding of roofing insulation panels and waterproofing membranes.



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## Benefits of using INSTA-STIK™ over alternative systems:

### Benefits of INSTA-STIK™ over mechanical fixing

- »» No cold bridges and risk of water infiltration
- »» No fasteners visible from underside
- »» No damage to concrete or metal deck surfaces
- »» Minimum noise, vibration and disruption to building occupants
- »» No dust or falling debris
- »» No surface dust
- »» Fewer man hours required saving time and money

### Benefits of INSTA-STIK™ over hot bitumen

- »» No need for a bitumen boiler and boiling bitumen on site, making the process much safer
- »» Higher output per man hour
- »» Lighter and easier to carry to roof level - further improving safety
- »» Quicker, cleaner and easier to apply
- »» Can be applied to roofs which are not completely dry
- »» INSTA-STIK™ is not temperature sensitive when cured
- »» No building height restrictions

### Benefits of INSTA-STIK™ over cold-applied Adhesives including Liquid Polyurethane

- »» No wastage: the INSTA-STIK™ cylinder can be used time and again, up to its sell-by date, until all the adhesive is used
- »» Compatible with most roofing substrates since it contains no strong solvents
- »» Bonds significantly faster than one-part liquid PU adhesives
- »» Effective on vertical surfaces
- »» Effective for adhering insulation boards and waterproofing synthetic membranes where approved by the manufacturer
- »» Consistent application with the professional wand applicator
- »» Good performance on fibre cement boards

Unlike liquid glues, INSTA-STIK™ does not flow entirely through the fleece of the membrane and does not contact the PVC layer. Therefore it reduces the risk of damages due to embrittlement of the membrane.



# INSTA-STIK ROOFING

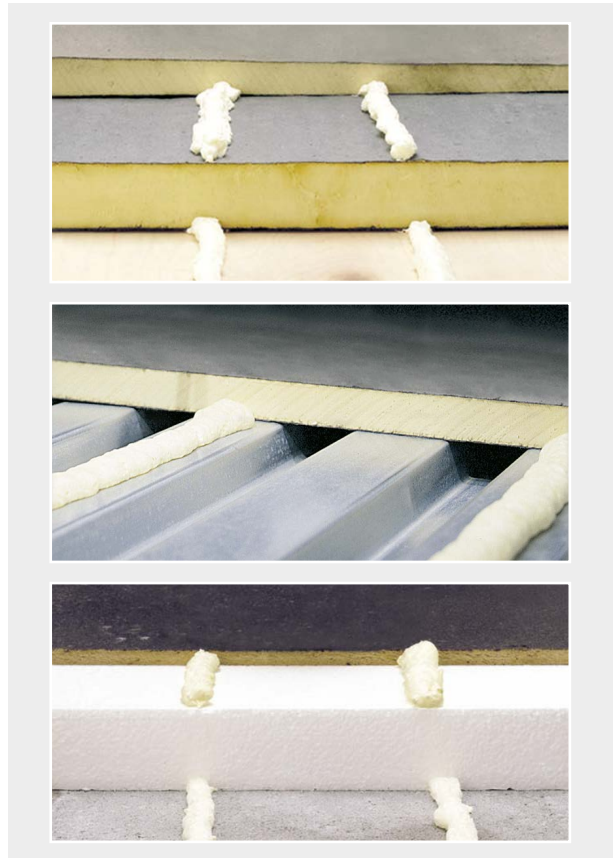
INSTA-STIK™ ROOFING was tested extensively by Factory Manual and Underwriters Laboratories and other European testing authorities (more details upon request.)

## Typical Compatible Roof Insulations

Mineral wool fiber boards
Expanded polystyrene boards
Cellular foam glass
Wood fiber boards
Perlite
Oriented strand boards
Polyisocyanurate boards
Fiberglass faced gypsum roof boards
Cork
Bituminous felt faced boards
Extruded polystyrene boards (DOW STYROFOAM™)

## Typical Compatible Roof Decks and Substrates

Existing bituminous felt roof
Sanded finish felt vapor control layer
Asphalt
Pre-cast / lightweight structural concrete
Poured-in-place concrete (28 days cured min.)
Cementitious wood fiber plank
Lightweight structural plank
Approved vapor layers (call Technical Support)
Galvanized steel decks (min. 0.7mm gauge steel)
Plastisol coated steel
Painted steel
Plywood
Sanded bituminous felt
Galvanized metal deck
Waterproofing membranes



## Typical compatible waterproofing membranes

Fleeced-back PVC
TPO - Thermoplastic Polyolefin
TPE - Thermoplastic Polyolefin Elastomer
Bituminous
EPDM Rubber - ethylene propylene diene monomer

### Important notes:

Generally, but especially for galvanized metal decks, surfaces must be free from oil and grease. Before installation, the suitability of the roof assembly to resist wind loading must be assessed in accordance with national requirements.

For information on compatibility of INSTA-STIK™ ROOFING adhesive to other building materials and substrates than listed, please refer to the local Dow office or distributor. Generally, the compatibility of adjacent layers bond with INSTA-STIK™ ROOFING adhesives must be proven by manufacturers of the layers.

# INSTA-STIK ROOFING

**Table 1 - INSTA-STIK™ ROOFING application for attachment of insulation boards**

Building height (m)	Parapet height (mm)	Perimeter band width (m)	Spacing (mm) at perimeter	Spacing (mm) central roof area
0 - 6,0	0 - 600	1,0	150	300
	600+	0	300	300
6,0 - 12,5	0 - 600	2,0	150	300
	600-1200	1,0	150	300
	1200+	0	300	300
12,5 - 21,5	0 - 600	3,0	150	300
	600-1200	2,0	150	300
	1200+	1,0	150	300
21,5 - 30,5	0 - 600	4,0	150	300
	600-1200	3,0	150	300
	1200+	3,0	150	300

Coverage is approximately 100 m<sup>2</sup> of insulation per tank of INSTA-STIK™ ROOFING for 19-25mm wide beads at 300 mm spacing.  
Based on an adhesive bond strength of 1,5 kN/m bead length (19-25 mm width) between substrate and insulation.

**Table 2 - INSTA-STIK™ ROOFING application for attachment of synthetic waterproofing membranes**

Building height (m)	Parapet height (mm)	Perimeter band width (m)	INSTA-STIK™ STD and MBA		INSTA-STIK™ SPRAY only	
			Spacing at perimeter (mm)	Spacing central roof area (mm)	Weight <sup>1)</sup> at perimeter (g/m <sup>2</sup> )	Weight <sup>1)</sup> at central roof area (g/m <sup>2</sup> )
0 - 6,0	0 - 600 600+	1,0 0	150	200	60-150 +20%	60-150
			200	200		
6,0 - 12,5	0 - 600 600-1200 1200+	2,0 1,0 0	150	200		
			150	200		
			200	200		
12,5 - 21,5	0 - 600 600-1200 1200+	3,0 2,0 1,0	150	200		
			150	200		
			150	200		
21,5 - 30,5	0 - 600 600-1200 1200+	4,0 3,0 3,0	150	200		
			150	200		
			150	200		

Coverage is approx. 70 m<sup>2</sup> of membrane per tank of INSTA-STIK™ STD or MBA, with 19-25 mm beads at 200 mm spacing.

Coverage is approx. 130m<sup>2</sup> of membrane per tank of INSTA-STIK™ SPRAY when adhesive weight is 80gr/m<sup>2</sup>.

<sup>1)</sup> Recommended glue weight is system dependant. Contact your membrane supplier for specific information.

## Typical Physical Properties<sup>1)</sup>

	Units	INSTA-STIK™ ROOFING STD	INSTA-STIK™ ROOFING MBA	INSTA-STIK™ ROOFING SPRAY	Test Method
Colour	-	Light yellow	Light orange	Grey	Visual
Tack Free Time	min	9	9	9	DOW Internal Method
Free Rise Density	kg/m <sup>3</sup>	37	37	-	DIN 53420
Bond strength <sup>2)</sup>	kPa	-	-	>80kPa	EN 1607

(1) Based on test methods mentioned above, all data are given for non-aged foam evaluated @ 23°C, 50 % relative humidity.

(2) Bond strength between XPS boards. Performance may vary with systems.

# INSTA-STIK ROOFING STD

INSTA-STIK™ ROOFING STD is a moisture-curing one-component polyurethane roofing adhesive, **specifically designed for use with wand and hose dispensing accessory.**

Adhesive is supplied in portable, pressurized container requiring no external power source. It contains an environmentally safe propellant, which complies with the latest EU regulations on the use of fluorinated greenhouse gases in one component polyurethane foams.

## Typical areas of application

Product has been specifically designed for use with wand and hose dispensing accessory. It provides permanent and durable bond for new roof or roof replacement applications, to adhere:

- ››› compatible insulation boards to a wide range of substrates on flat roofs
- ››› compatible insulation boards to compatible insulation boards on flat roofs and
- ››› compatible fleece-back membranes to a wide range of substrates on flat roofs

## Packaging and accessories

Steel cylinder in carton box

(Net weight: 10.4kg; Gross weight: 13.6kg)

- 1 flexible dispensing hose
- 1 dispensing wand.



STD

## Handling and Storage

- »» Store and transport cylinders always in an upright position and in dry, frost free conditions.
- »» Storage temperature: +10°C to + 25°C

INSTA-STIK™ ROOFING STD can be used at ambient temperatures from +5°C to +35°C.

For optimal results, the product temperature at the time of application should be between +18°C and +25°C. Fully cured foam is thermally stable between - 40°C and +100°C. It is durable and permanent except when exposed to UV-rays.

INSTA-STIK™ ROOFING has been designed to be used in low slope commercial roofing applications. It is not approved for use on decks greater than 2:12 slope.

## Application

Getting INSTA-STIK™ ROOFING STD ready for use:

- 1 Remove cylinder from the carton.
- 2 Shake vigorously for minimum 20 seconds using a side-to-side motion before attaching the flexible hose. Shaking should be repeated during application.
- 3 Attach the swivel hose fitting on one end of the flexible hose to the cylinder valve. Once it is seated properly, tighten securely with the provided tool.
- 4 Make sure brass ON/OFF valve attached to the dispensing hose is in the OFF position.
- 5 Attach the double threaded wand to the dispensing hose ON/OFF valve. Hand tighten.
- 6 Slowly open the valve at the top of the cylinder until fully open. Check for leaks. If there are no leaks, INSTA-STIK™ ROOFING STD is ready for use.
- 7 Before dispensing INSTA-STIK™ ROOFING STD, point wand in empty carton to allow for initial burst.
- 8 To dispense INSTA-STIK™ ROOFING STD, slowly move the trigger of the ON/OFF valve to the ON position. Flow may be controlled by this ON/OFF valve.
- 9 About 5 seconds before you want INSTA-STIK™ ROOFING STD to stop flowing, close the ON/OFF valve by moving the trigger to the OFF position. It is normal for a small amount of adhesive to flow from the nozzle after the valve is closed.

To ensure optimal quality, do not apply INSTA-STIK™ ROOFING STD with any other accessory than the supplied wand and hose kit.

INSTA-STIK™ ROOFING STD bead size should be 19mm to 25mm wide. The distance between the beads may vary with building height, parapet walls...

## Applying insulation boards:

The insulation boards must be placed end-to-end with staggered joints in alternating rows. It is recommended to place beads perpendicular to the larger board section. In multiple layers of insulation, the staggered joint method must be used to eliminate thermal breaks. INSTA-STIK™ ROOFING STD beads should be dispensed perpendicular to the direction beads were dispensed on previous layer.

Set boards into the beads within 3 minutes. Walk on the boards immediately to spread the beads for maximum contact. Continue to walk on the insulation boards every 5-7 minutes until the insulation is firmly attached, usually 20-45 minutes. Humidity directly affects curing rate. Under low humidity conditions, the adhesive cures slower and the insulation boards must be walked on more often until firmly attached.

For details on temporary storage, restart, disposable, refer to the Operating Instructions provided in the carton box.



# INSTA-STIK ROOFING MBA

INSTA-STIK™ ROOFING MBA is a moisture-curing one-component polyurethane roofing adhesive, **specifically designed for use with Multi Bead Applicator (MBA) accessory.**

Adhesive is supplied in portable, pressurized container requiring no external power source. It contains an environmentally safe propellant, which complies with the latest EU regulations on the use of fluorinated greenhouse gases in one component polyurethane foams.

## Typical areas of application

Product has been specifically designed for use with wand and hose dispensing accessory. It provides permanent and durable bond for new roof or roof replacement applications, to adhere:

- ››› compatible insulation boards to a wide range of substrates on flat roofs
- ››› compatible insulation boards to compatible insulation boards on flat roofs and
- ››› compatible fleece-back membranes to a wide range of substrates on flat roofs

## Packaging and accessories

Steel cylinder in carton box  
(Net weight: 10.4kg; Gross weight: 13.6kg)

- 1 Multi Bead Applicator



**MBA**



## Handling and Storage

- »» Store and transport cylinders always in an upright position and in dry, frost free conditions.
- »» Storage temperature: +10°C to + 25°C

Prior to applying the adhesive, surfaces must be firm, clean, and free of dust, grease or loose particles. Not approved for use on wet surfaces or on decks with standing water.

INSTA-STIK™ ROOFING MBA can be used at ambient temperatures from +5°C to +35°C.

For optimal results, the product temperature at the time of application should be between +18°C and +25°C.

Fully cured foam is thermally stable between - 40°C and +100°C. It is durable and permanent except when exposed to UV-rays.

INSTA-STIK™ ROOFING has been designed to be used in low slope commercial roofing applications. It is not approved for use on decks greater than 2:12 slope.

## Application

Getting INSTA-STIK™ ROOFING MBA ready for use:

- 1 To assemble and pressurize the MBA System, refer to assembly instructions provided with equipment
- 2 To dispense INSTA-STIK™ ROOFING MBA, slowly depress valve handle on the MBA handle assembly.
- 3 The bead size of INSTA-STIK™ ROOFING MBA adhesive should be between 19 and 25mm. The MBA is designed to simultaneously dispense up to 8 beads.
- 4 About 5 seconds before you want INSTA-STIK™ ROOFING MBA to stop flowing, release the valve handle on the applicator. Continue to drag MBA until INSTA-STIK™ ROOFING MBA stops flowing. It is normal for a small amount of adhesive to flow from the tubing after the valve is closed.

To ensure optimal quality, do not apply INSTA-STIK™ ROOFING MBA with any other accessory than the supplied MBA.

INSTA-STIK™ ROOFING MBA bead size should be 19mm to 25mm wide. The distance between the beads may vary with building height, parapet walls...

### Applying insulation boards:

The insulation boards must be placed end-to-end with staggered joints in alternating rows.

It is recommended to place beads perpendicular to the larger board section.

In multiple layers of insulation, the staggered joint method must be used to eliminate thermal breaks. INSTA-STIK™ ROOFING MBA beads should be dispensed perpendicular to the direction beads were dispensed on previous layer. Set boards into the beads within 3 minutes. Walk on the boards immediately to spread the beads for maximum contact.

Continue to walk on the insulation boards every 5-7 minutes until the insulation is firmly attached, usually 20-45 minutes.

Humidity directly affects curing rate. Under low humidity conditions, the adhesive cures slower and the insulation boards must be walked on more often until firmly attached.

For details on temporary storage, restart, disposable, refer to the Operating Instructions provided in the carton box.



# INSTA-STIK ROOFING SPRAY

INSTA-STIK™ ROOFING SPRAY is a moisture-curing one-component polyurethane roofing adhesive, **specifically designed for spraying and full face bonding of roofing systems**. Adhesive is supplied in portable, pressurized container requiring an external air pressure source. It contains an environmentally safe propellant, which complies with the latest EU regulations on the use of fluorinated greenhouse gases in one component polyurethane foams.

## Typical areas of application

INSTA-STIK™ ROOFING SPRAY has been specifically designed for use with an air compressor and a special dispensing spray gun equipment supplied by Dow. It has outstanding design flexibility and is particularly suitable to adhere surfaces on contoured roofs or roofs with irregular shape. Provided adhesion performance complies with local requirements, INSTA-STIK™ ROOFING SPRAY can be used to adhere:

- ››› compatible insulation boards to compatible insulation boards on flat roofs, and
- ››› compatible membranes to a wide range of substrates.

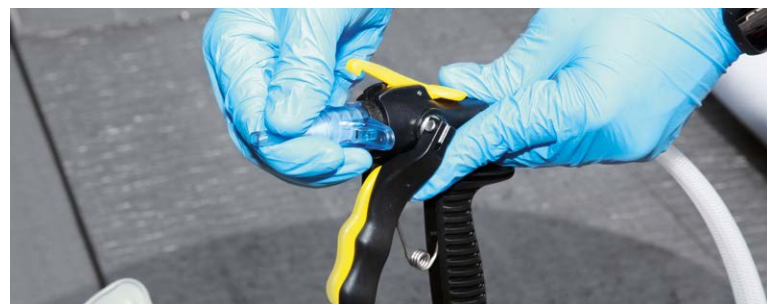
## Packaging and accessories

- 1 steel cylinder in carton box  
(Net weight: 10.4kg; Gross weight: 13.6kg)
- 1 operating instruction leaflet

### Accessories:

Spray Gun accessory kit includes:

- 1 Spray Gun (5 meters flexible hose)
- 25 Spray nozzles
- 1 cylinder connection valve
- 1 compressor quick connection
- 1 wrench



SPRAY

## Handling and Storage

Store and transport cylinders always in an upright position and in dry, frost free conditions.

Storage temperature: +10°C to + 25°C

Shelf life: 18 months

## Recommended Processing Conditions

Prior to applying the adhesive, surfaces must be firm, clean, and free of dust, grease or loose particles. Not approved for use on wet surfaces or on decks with standing water. INSTA-STIK™ ROOFING SPRAY can be used at ambient temperatures from +5°C to +35°C. For optimal dispensing, the product temperature at the time of application should be between +25°C and +30°C.

Fully cured foam is thermally stable between -40°C and +100°C. It is durable and permanent except when exposed to UV-rays.

INSTA-STIK™ ROOFING SPRAY has been designed to be used in low slope commercial roofing applications. It is not approved for use on decks greater than 2:12 slope.

## Application

Getting INSTA-STIK™ ROOFING SPRAY ready for use:

- 1 Remove cylinder from the carton.
- 2 Shake vigorously for minimum 20 seconds using a side-to-side motion before attaching the accessory. Shaking should be repeated during application.
- 3 Connect one flexible hose of the spray gun with the cylinder using the valve connection provided in the accessory kit. Once it is seated properly, tighten securely with the provided tool.
- 4 Connect the second flexible hose of the spray gun with the air compressor, using the quick connection valve provided with the accessory kit.
- 5 Mount a spray nozzle on the gun (locked position).
- 6 Slowly open the valve at the top of the cylinder until fully open. Check for leaks.
- 7 Turn air compressor on (5 bars). If there are no leaks, INSTA-STIK™ ROOFING SPRAY is ready for use
- 8 To dispense INSTA-STIK™ ROOFING SPRAY, pull fully the trigger of the gun. Flow may be controlled by adjusting air pressure and air flow.
- 9 Distance between the gun and the substrate should be ca. 30-50cm. The amount of product is adjusted by visual control

To ensure optimal quality, do not apply INSTA-STIK™ ROOFING SPRAY with any other accessory than the recommended Dow accessories.

The quantity of INSTA-STIK™ ROOFING SPRAY dispensed on the substrate should be adjusted to meet the desired spray pattern and bond strength. It is recommended to carry out tests with the specific substrate and cover to confirm compatibility with materials and bond strength of the system before the application.

### Applying a membrane:

The membrane is unrolled in its final position on the roof and folded away in half in the width direction. INSTA-STIK™ ROOFING SPRAY is sprayed on the substrate and covered within Tack Free Time (9 minutes) with the part of the membrane which was folded away. A light and uniform pressure should be applied with a brush to eliminate any air blister and insure good contact between the substrate and the membrane. The same operation should be repeated with the other side of the membrane. The membrane is usually firmly attached within 20-45 minutes depending on application conditions. Humidity directly affects curing rate. Under low humidity conditions, the adhesive cures slower. The product is not intended for use on surfaces covered with standing water or during raining conditions.





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**Note:**

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