Technical Information Sheet

Image Coming Soon

I.S.O. Twin Pack™ Adhesive

Item Description	Item Number
Insulation Adhesive	W56RACINTA

Description

I.S.O. Twin Pack Insulation Adhesive is a two-component, LVOC, low-rise polyurethane adhesive designed for anchoring acceptable roof insulation and cover boards to acceptable substrates, as well as for adhering multiple layers of insulation. I.S.O. Twin Pack is a solvent free and VOC free insulation adhesive that contains no harmful HCFC or CFCs.

I.S.O. Twin Pack Insulation Adhesive is suitable for cold weather applications when stored properly. I.S.O. Twin Pack Insulation Adhesive is dispensed using I.S.O. Twin Pack Hand Dispenser (TIS 1519) I.S.O. Twin Pack Four Bead Dispenser (TIS 1520); Multi-Bead Plus Dispenser; Battery Powered Single Bead Applicator or a Pneumatic Single Bead Applicator. The dispensers extrude I.S.O. Twin Pack Part A and B simultaneously to the static mixer, which results in a mixed adhesive in bead form.

Method of Application

1. I.S.O. Twin Pack Insulation Adhesive can be installed at temperatures as low as 20 °F (-7 °C) and rising when the material is stored between 60 °F (16 °C) and 80 °F (27 °C).
2. For best results, use power actuated dispensers (battery; pneumatic) to dispense I.S.O. Twin Pack. Hand powered dispensers may not offer the continuous force necessary to insure uniform mixing of large quantities.
3. The substrate must be clean, smooth, dry, and free of sharp edges, loose and foreign materials, oil, grease, and other contaminants.
4. To mix and dispense I.S.O. Twin Pack Insulation Adhesive from kits, remove plugs and apply the static mixer over plug end of kit by hand tightening static mixer to kit with plug end facing up. Keep plug end facing up until you are ready to dispense I.S.O. Twin Pack Insulation Adhesive to the deck substrate.
5. Properly mixed I.S.O. Twin Pack will be amber, with no marbling. Part A and B will be extruded simultaneously through dispensing equipment.
6. To stop dispensing I.S.O. Twin Pack Insulation Adhesive, stop the dispenser plunger from advancing and point the mixing end up stopping Part A and Part B from entering static mixer. This stopped position of the kit can only be maintained for several minutes, as Part A and Part B already in the static mixer will continue to react, set up, and block the static mixer. If the static mixer becomes blocked during stopped period, replace static mixer to mix and dispense the remaining Part A and Part B in kit.

Method of Application Continued

7. Apply I.S.O. Twin Pack Insulation Adhesive in a bead ½" (13 mm) wide to deck substrate in spacing as specified for the project and immediately set the insulation or cover boards, 4' x 4' (1.22 m x 1.22 m) maximum, in fresh I.S.O. Twin Pack insulation adhesive before a skim coat develops. The adhesive will rise to a bead of ¾" – 1" (19.0 mm – 25.4 mm) within minutes after placement. Rise time will depend on the ambient conditions: warmer=faster; cooler=slower.
8. To ensure that the insulation makes continuous contact with the adhesive during the critical set-up period, immediately weight each board after setting in place, using full pails of Bonding Adhesive or other available source of weight that will not damage the roof insulation.

Storage

- Store in original containers at temperatures between 60 °F (16 °C) and 80 °F (27 °C). Do not allow I.S.O. Twin Pack to freeze.
- Store cartons with kits on their side.
- DO NOT store kits with plunger or plugged end down to avoid the possibility of leakage.
- Keep plugs on kits tightly closed during storage. DO NOT expose to moisture.
- For optimum results, rotate your stock to ensure stored material has not exceeded the shelf life of one year.

Shelf Life

Shelf life of twelve (12) months can be expected when stored in original, unopened containers at temperatures between 60 °F and 80 °F (16 °C and 27 °C) and kept out of sunlight and protected from rain and moisture.

Precautions

- Refer to Safety Data Sheets (SDS) for additional safety information.
- Store in original containers at temperatures between 60 °F (16 °C) and 80 °F (27 °C). Do not allow I.S.O. Twin Pack to freeze.
- Personnel who are sensitive/allergic to isocyanate or polyurethane should not work with I.S.O. Twin Pack Insulation Adhesive.
- At the start of each workday, and prior to beginning work, perform a trial application using I.S.O. Twin Pack Insulation Adhesive and a sample piece of insulation or cover board to verify the product's suitability for use that day. Verify that proper mixing, set-up, and overall adhesion of insulation to substrate is being achieved before proceeding. Use only when conditions allow, and daily trials indicate successful adhesion.
- Install only as much roof insulation with I.S.O. Twin Pack Insulation Adhesive as can be covered and made watertight during that working day. The performance of I.S.O. Twin Pack should be periodically monitored during the workday to verify that sufficient rise, adhesion, and mating of the insulation using I.S.O. Twin Pack is occurring.
- Review dispensing equipment instructions prior to use. Ensure dispensing equipment is in good working order.
- It is the responsibility of the Roofing Contractor to maintain dispensing equipment in good working order to deliver and thoroughly mix, meter, and dispense this adhesive in a 1:1 (Part A: Part B) ratio.
- Avoid contact with eyes. Wear safety glasses with side shields.
- Avoid breathing of vapors. A Self-Contained Breathing Apparatus (SCBA) or Respirator should be used in areas of limited ventilation.
- Avoid contact with skin. Wear gloves when dispensing. Wash hands thoroughly after handling.
- Set insulation boards immediately into wet I.S.O Twin Pack Insulation Adhesive. Insulation boards shall not exceed 4' x 4' (1.2 m x 1.2 m).
- It is imperative that freshly installed insulation is continuously weighted until I.S.O. Twin Pack Insulation Adhesive sets up and the board is held in place by the adhesive.
- Use caution when removing plugs from kits.
- Do not burn empty kit containers. Dispose in accordance with local, federal, and state regulations.

LEED® Information

Post-Consumer Recycled Content: 0%

Post Industrial Recycled Content: 0%

Manufacturing Location: Chagrin Falls, OH

NOTE: LEED® is a registered trademark of the U.S. Green Building Council

Typical Properties

Properties	Minimum Performance
Color: Part A	Amber
Color: Part B	Off-White
Composition Part A	Isocyanate pre-polymer
Composition Part B	Polyol
Mix Ratio of A:B	1:1 by volume
Specific Gravity Part A	1.18 + 0.06
Specific Gravity Part B	1.02 + 0.05
Viscosity Part A/Part B	3,000-24,000 cps, #52 spindle at 5 RPM, 77 °F (25 °C)
V.O.C. Content	0 g/L (0 lb/gal)

Beads Dispensed – Coverage per Carton

4" o.c. (102 mm)	200 ft^2 (27.87 m^2)
6" o.c. (152 mm)	300 ft^2 (18.58 m^2)

Typical Set Up Times

At 60 °F (16 °C) to 90 °F (32 °C)	5-8 minutes
At 20 °F (-7 °C) to 60 °F (16 °C)	8-15 minutes

Packaging

Properties	Value
Kit Contents	I.S.O. Twin Pack Insulation Adhesive is packaged as a kit consisting of one 750 ml Part A cartridge fastened together with one 750 ml Part B cartridge.
Each Case Contains	4 Part A – Part B Kits, 4 Static Mixers, Instruction Sheet
Weight of Case	20 lb (9 kg)
Number per Pallet	48

NOTE: Coverage rates of each I.S.O. Twin Pack kit, when properly mixed, dispenses 150' (45.7 m) of mixed adhesive in a bead ½" (13 mm) wide. This bead will rise ¾" - 1" (19.0 mm – 25.4 mm). This equates to a coverage area of 600 ft^2 (55.74 m^2) per carton when installed in beads 12" (304.8 mm) on center (typical spacing).
NOTE: Coverage rate may be reduced due to irregularities in substrates.

Acceptable Substrates	
Substrate	**NOTE**
Structural Concrete (New)	New poured decks must have a minimum 28-day cure time
Structural Concrete (Existing)	Positive adhesion test required
Steel	New steel decks may require cleaning to remove processing oils
Gypsum Decks	Positive adhesion test required
Cementitious Wood Fiber	
Modified Bitumen Roofs	
Plywood and OSB	
SBS Base Sheets	
V-Force Membrane	Positive adhesion test required
Lightweight Concrete	Acceptable Lightweight concrete substrates include cellular or air-entrained concrete.
Existing Asphalt and Modified Bitumen Roofs (mineral or Smooth Surfaced)	Existing substrates containing residual asphalt must be cleaned and scraped smooth as possible.
Coal Tar Pitch	Positive adhesion test required. Primer may be required.
Insulation ISO 95+™ GL / ISOGARD™ GL, ISOGARD HD, RESISTA™ / ISOGARD CG, Structodek® HD, DensDeck®, Securock®, Expanded Polystyrene, Extruded Polystyrene	Non-Elevate brand insulations require a positive adhesion test.
NOT ACCEPTABLE	Single Ply membranes, Fiberglass insulation, Perlite insulation

Necessary Equipment

The following equipment is necessary to dispense I.S.O. Twin Pack Insulation Adhesive:

Static Mixer: Supplied with I.S.O. Twin Packs. Static mixer tubes are bolted onto the plugged end of kit after plugs removed. As Part A and B are simultaneously extruded through the tube, the static mixer properly and thoroughly mixes Part A and Part B. The tip at the end of the static mixer (opposite bolt end) dispenses mixed I.S.O. Twin Pack Insulation Adhesive in a ½" (13 mm) wide bead.

I.S.O. Twin Pack 4 Bead (Elevate Item No. W56RACINT4) and 13 Bead MBA+ Multi Bead Dispenser (sold separately): Cart and wheel mounted, hand maneuverable, with battery driven plungers, these dispensers mix and dispense multiple beads of I.S.O. Twin Pack Insulation Adhesive simultaneously from 12" (305 mm) on center all the way up to full coverage on open, unobstructed roof areas. Pre-marked cartridge slots provide consistent application for desired bead spacing of the I.S.O. Twin Pack.

I.S.O. Twin Pack Single Bead Hand Dispenser (Elevate Item No. W56RACINTG); Battery Powered Single Bead Applicator and Pneumatic Single Bead Applicator (sold separately): Mixes and dispenses one bead of I.S.O. Twin Pack Insulation Adhesive and are necessary for dispensing I.S.O. Twin Pack Insulation Adhesive on roof areas where Multi Bead Dispensers cannot be maneuvered.

Please contact Holcim Technical Services at 800-428-4511 for further information.

Firestone, the brand of premier roofing, wall, and lining systems you know and trust, will be coming to you under a new name: Elevate. During our transition, products carrying the brand name **Firestone** will change to **Elevate** on product labels and packaging, Technical Information Sheets, and elsewhere. Only the brand name is changing. Our products remain the same.

For further information on our brand transition to Elevate, scan the code below with your smartphone, or visit our website: www.holcimelevate.com