



I.S.O. Twin Pack™ Insulation Adhesive

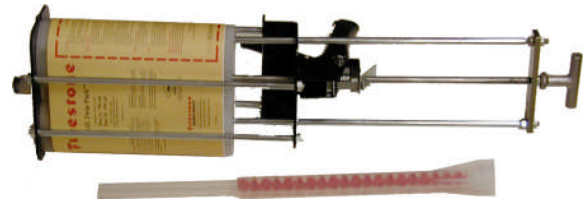
Firestone Item Number: W56RACINTA

DESCRIPTION:

- I.S.O. Twin Pack Insulation Adhesive is a two-component low-rise polyurethane adhesive designed for anchoring acceptable roof insulation to acceptable substrates, and to adhere multiple layers of insulation.
- I.S.O. Twin Pack Insulation Adhesive is dispensed using I.S.O. Twin Pack Hand Dispenser (Firestone Item No.: W56RACINTG) or I.S.O. Twin Pack Four Bead dispenser (Firestone Item No.: W56RACINT4). The dispensers extrude I.S.O. Twin Pack Part A and B simultaneously to the static mixer, which results in mixed adhesive in bead form.
- Firestone Building Products standard warranties are available up to 20-year warranty period. Please refer to the Firestone Technical Database at www.firestonebpc.com for specific warranty requirements.

METHOD OF APPLICATION:

1. Install I.S.O. Twin Pack Insulation Adhesive only when ambient conditions, and bonding substrates and insulations exceed 35 °F (2 °C) and are rising.
2. The substrate must be clean, smooth, dry, free of sharp edges, loose and foreign materials, oil, grease, and other contaminants.
3. 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.
4. Properly mixed I.S.O. Twin Pack will be yellow, with no marbling. Part A and B will be extruded simultaneously through dispensing equipment.
5. To stop dispensing I.S.O. Twin Pack Insulation Adhesive, stop the dispenser plunger from advancing and point the mixing end up to stop 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 in order to mix and dispense the remaining Part A and Part B in kit.
6. Apply I.S.O. Twin Pack Insulation Adhesive in a bead 1/2" (12.7 mm) wide to deck substrate in spacing as specified for the project. The adhesive will rise to a bead of 3/4" – 1" (19.0 mm – 25.4 mm) within minutes after placement. Rise time will depend on the ambient conditions: warmer=faster; cooler=slower.
7. To ensure that the insulation makes continuous contact with the adhesive during the critical set-up period, set the insulation board [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. Immediately after setting each insulation board, weight each board using full pails of Bonding Adhesive or other available source of weight that will not damage the roof insulation.



COVERAGE RATE:

Each I.S.O. Twin Pack kit, when properly mixed, dispenses 150 ft (45.7 m) of mixed adhesive in a bead 1/2" (12.7 mm) wide. This bead will rise to 3/4" - 1" (19.0 mm - 25.4 mm). This equates to 600 ft² (55.74 m²) 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.

Coverage rates for other bead spacing:

- 6" (152.4 mm) on center: 300 ft² (27.87 m²)/CTN
- 4" (101.6 mm) on center: 200 ft² (18.58 m²)/CTN

TYPICAL SET-UP TIMES:

- At 60 °F (15.6 °C) to 90 °F (32.2 °C): approx. 5-8 minutes
- At 35 °F (2 °C) to 60 °F (15.6 °C): approx. 8-15 minutes

PHYSICAL PROPERTIES:

Property	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 or B:	16,000-32,000 CPS, #5 spindle @ 5 RPM, 77 °F
V.O.C. Content:	0 g/L

PACKAGING:

- 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
 - 6 Static Mixers
 - Instruction Sheet
- Weight of each case is about 20 lb (9 kg)
- 48 cases per pallet

SHELF LIFE:

- When I.S.O. Twin Pack is stored in original unopened container indoors away from direct sunlight between 60 °F - 80 °F (16 °C - 27 °C), shelf life is twelve months.
- For optimum results, rotate your stock to ensure stored material has not exceeded the shelf life of one year.

STORAGE:

- Store in original containers at temperatures between 60 °F - 80 °F (16 °C - 27 °C).
- Store cartons with kits on their side.
- DO NOT store kits with plunger or plugged end down to avoid the possibility of leakage.



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DECK SUBSTRATE AND METHOD OF APPLICATION:

Deck/Substrate	Acceptable	Pull Test Required	Not-Acceptable	Notes
Steel	X			New steel decks may require cleaning to remove processing oils.
Structural Concrete (New)	X			New poured decks must have a minimum 28-day cure time.
Structural Concrete (Existing)		X		
Plywood and OSB	X			
Cementitious Wood Fiber	X			
Gypsum Decks		X		
Lightweight Concrete			X	
Coal Tar Pitch Built-up Roofs			X	
Existing Asphalt and Modified Bitumen Roofs (Mineral or Smooth Surfaced)	X			
Existing Single-Ply Roofs			X	
Base Sheets	X			
Insulations:				4' x 4' (1.2 m x 1.2 m) maximum size
Polyiso, Wood Fiber, DensDeck Products	X			
Expanded Polystyrene, Extruded Polystyrene, Fiberglass, Perlite			X	
Existing decks containing residual asphalt must be cleaned and scraped smooth as possible.				
Surfaces to receive I.S.O. Twin Pack Insulation Adhesive shall be clean, dry, sound, solid, free of oil, grease, and other contaminants. See the appropriate Firestone Design Guide for more information.				
<i>Note: DensDeck is a registered Trademark of Georgia-Pacific.</i>				

NECESSARY EQUIPMENT:

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

- **I.S.O. Twin Pack Four Bead Dispenser**
Firestone Item No. W56RACINT4 (sold separately):
Cart and wheel mounted, hand maneuverable, with battery driven plungers, mixes and dispenses four beads of I.S.O. Twin Pack Insulation Adhesive simultaneously 12" (304.8 mm) on center. I.S.O. Twin Pack Four Bead Dispenser is necessary for dispensing I.S.O. Twin Pack Insulation Adhesive on open, unobstructed roof area.
- **I.S.O. Twin Pack Hand Dispenser**
Firestone Item No. W56RACINTG (sold separately):
Hand powered, mixes and dispenses one bead of I.S.O. Twin Pack Insulation Adhesive. I.S.O. Twin Pack Hand Dispenser is necessary for dispensing I.S.O. Twin Pack Insulation Adhesive on roof areas where Four Bead Dispenser cannot be maneuvered.
- **Static Mixer**
Supplied with I.S.O. Twin Packs. Static mixer bolts on plugged end of kit after plugs removed. As Part A and B are simultaneously extruded into the static mixer, the static mixer properly and thoroughly mixes Part A and Part B. Tip at end of static mixer (opposite bolt end) dispenses mixed I.S.O. Twin Pack Insulation Adhesive in a 1/2" (12.7 mm) wide bead.

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PRECAUTIONARY INFORMATION:

- Review applicable Material Safety Data Sheets prior to use.
- 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, perform a trial anchoring with a sample piece of insulation with I.S.O. Twin Pack Insulation Adhesive to verify applicability for 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 anchored with I.S.O. Twin Pack Insulation Adhesive as can be covered and made watertight during that working day. 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 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 ratio of 1:1 (Part A:Part B).
- 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.
- Do not allow I.S.O. Twin Pack to freeze. Store between 60 °F - 80 °F (16 °C - 27 °C). Apply at 35 °F (1.67 °C) and rising or higher.
- DO NOT store in direct sunlight.
- Store kits on their sides. DO NOT store with plunger or plug end down to avoid leakage.
- Keep plugs on kits tightly closed during storage. DO NOT expose to moisture.
- 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.
- Insulation boards shall not exceed 4' x 4' (1.2 m x 1.2 m).
- Review Technical Information Sheet 1705, "Recommended Guidelines for Application of Roofing Adhesives to an Occupied Building."

LEED INFORMATION:

Post Consumer Recycled Content: 0%
Post Industrial Recycled Content: 0%
Manufacturing Location: Chargin Falls, OH



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