



## 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 specific deck types where allowed by Firestone specifications.

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.

**AVAILABLE WARRANTIES:** Firestone Building Products standard warranties are available up to 20-year warranty period.

**APPLICATION:**

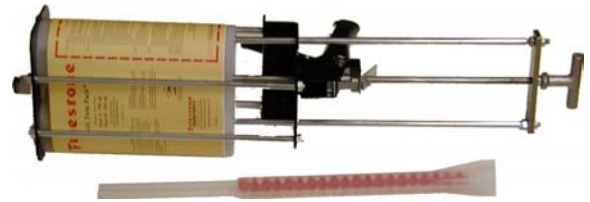
Install I.S.O. Twin Pack Insulation Adhesive only when ambient conditions, and bonding substrates and insulations, exceed 35° F (2° C) and are rising.

To mix and dispense I.S.O. Twin Pack Insulation Adhesive from kits, 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.

Properly mixed I.S.O. Twin Pack will be yellow, with no marbling. Part A and B will be extruded simultaneously through dispensing equipment. 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.

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.

To insure 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.



### PRODUCT DATA

Composition, Part A:	Isocyanate pre-polymer
Composition, Part B:	Polyol
Mix Ratio of A:B:	1:1 by volume
Color, Part A:	Amber
Color, Part B:	Off-white
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

(VOC) Volatile Organic Compound Content:	0 grams/liter
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**COVERAGE RATE:**

Each I.S.O. Twin Pack kit, when properly mixed, dispenses 150 feet (45.7 meters) 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 sq. ft. (55.74 sq. m) per carton when installed in beads 12" (0.3048 m) on center (typical spacing). Coverage rate may be reduced due to irregularities in substrates.

Coverage rates for other bead spacing:

6" (152.4 mm) on center: 300 sq. ft. (27.87 sq. m)/CTN  
4" (101.6 mm) on center 200 sq. ft. (18.58 sq. m)/CTN

**PACKAGING:**

I.S.O. Twin Pack Insulation Adhesive is packaged: four 750 ml Part A and B kits, eight static mixers, and one instruction sheet per carton.

**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

**SHELF LIFE:**

When I.S.O. Twin Pack is stored in original unopened container indoors away from direct sunlight between 60° F (15.6° C) and 80° F (26.7° C), shelf life is twelve months. Store cartons with kits on their side. DO NOT store kits with plunger or plugged end down to avoid the possibility of leakage.

## 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 drying 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:				
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..

### NECESSARY EQUIPMENT:

Refer to Training Manual.

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" (0.3048 meters) 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 (with 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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## I.S.O. Twin Pack™ Insulation Adhesive

### GENERAL INFORMATION:

- 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.
- Review applicable MSDS sheets prior to use.
- Review dispensing equipment prior to use. Insure dispensing equipment is in good working order.
- 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.
- Personnel who are sensitive/allergic to isocyanate or polyurethane should not work with I.S.O. Twin Pack Insulation Adhesive.
- Do not smoke during use. Protect from heat sources and sparks.
- Do not allow I.S.O. Twin Pack to freeze. Store between 60° F (15.6° C) and 80° F (26.7° 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.
- Use only when conditions allow, and daily trials indicate successful adhesion.
- 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.
- 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).
- 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.

### LEED INFORMATION:

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



Subject to the conditions of Approval when installed as described in the current edition of the FM Approval Guide

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