

TECHNICAL INFORMATION SHEET

I.S.O.Stick™ Insulation Adhesive (Winter Grade)

Item Description

Part 1, 5-gallon Bag-in-Box
Part 2, 5-gallon Bag-in-Box

Item Number

W56RACIA5B1W
W56RACIA5B2W



Product Information

Description:

I.S.O.Stick Insulation Adhesive (Winter Grade) is a two-component, low-rise polyurethane insulation adhesive applied in beads for adhesive attachment of Firestone-approved roof insulations to acceptable substrates as allowed by Firestone specifications. I.S.O.Stick Insulation Adhesive (Winter Grade) is specifically designed to be applied using the PaceCart™ dispenser, which simultaneously pumps Parts 1 and 2 to a static mixer, allowing a properly mixed bead of adhesive to be applied to the receiving substrate when ambient and substrate temperatures range from 25 °F (-3 °C) to 65 °F (18 °C). Firestone Building Products standard warranties are available up to a 30-year warranty period (please refer to the website at www.firestonebpc.com for specific warranty requirements). NOTE: PaceCart is a registered trademark of OMG, Inc.

Method of Application:

1. Install only as much roof insulation as can be covered and made watertight during that working day.
2. Substrates to receive I.S.O.Stick Insulation Adhesive (Winter Grade) must be clean, smooth, dry, free of sharp edges, loose and foreign materials, oil, grease, and other contaminants.
3. Use the Pace Cart dispenser to install I.S.O.Stick Insulation Adhesive (Winter Grade).
4. Install only when ambient conditions, bonding substrates and insulations range from 25 °F (-3 °C) to 65 °F (18 °C).
5. To properly mix and dispense I.S.O.Stick Insulation Adhesive (Winter Grade) with the PaceCart, install the I.S.O.Stick Insulation Adhesive (Winter Grade) Parts 1 and 2 onto the PaceCart per manufacturer's instructions. Open both valves located on the PaceCart applicator gun to start the flow of the adhesive to the substrate. The adhesive should be mixed at a 1:1 ratio through the attached static mixer. When properly mixed, there should be no marbling in the adhesive.
6. Apply the adhesive on the substrate in beads spaced 12" (300 mm) on center, or as specified to meet wind uplift requirements. Allow adhesive to rise ¾" - 1" (19 mm – 25 mm) and then lay suitable insulation into position.
7. Place maximum 4' x 4' (1.2 m x 1.2 m) insulation boards in fresh I.S.O.Stick Insulation Adhesive (Winter Grade) after the adhesive rises, but before a skim coat develops.
8. Immediately after setting the insulation board, provide continuous pressure using weighty objects such as adhesive pails on the insulation for a minimum of five minutes to ensure adequate contact between the insulation, substrate and I.S.O.Stick Insulation Adhesive (Winter Grade) adhesive during the critical set-up period.
9. To store previously opened containers, close the valves located on the gun and turn off the pump on the Pace Cart. Remove and discard the static mixer. Relieve pressure in the adhesive lines by opening and closing the valves on the adhesive gun. Keep Part 1 and Part 2 containers connected to the Pace Cart.
10. Replace static mixer after any 1-2 minute pause in dispensing I.S.O.Stick Insulation Adhesive (Winter Grade), as the material in the static mixer will cure, hindering and jeopardizing proper mixing and dispensing of the product.

Storage:

- Store in original unopened containers between 60 °F (16 °C) and 80 °F (27 °C) until ready for use and during use. The use of power blankets is recommended.
- Do not store in direct sunlight.
- Do not allow I.S.O.Stick Insulation Adhesive (Winter Grade) to freeze.
- Ship and store product with handle side up and keep caps of nozzle closed tightly.
- Do not expose to moisture.
- A shelf life of 18 months may be expected when product is stored according to these recommendations.

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Precautions:

- Review applicable Safety Data Sheet (SDS) prior to use.
- Personnel who are sensitive/allergic to isocyanate or polyurethane should not work with I.S.O.Stick Insulation Adhesive.
- At the start and throughout each workday, test samples made with I.S.O.Stick Insulation Adhesive (Winter Grade) should be created to verify that proper mixing, set-up and overall adhesion of insulation to substrate is being achieved before proceeding with product installation.
- Avoid contact with eyes. Wear safety glasses with side shields.
- Avoid breathing vapors. A Self-Contained Breathing Apparatus or Respirator should be used for limited ventilation.
- Avoid contact with skin. Wear gloves when dispensing. Wash hands thoroughly after handling.
- Use caution when removing caps from carton.
- Do not burn empty kit containers. Dispose in accordance with local, state and federal regulation.
- Insulation boards shall not exceed 4' x 4' (1.2 m x 1.2 m).

LEED® Information:

Post Consumer Recycled Content: 0%
 Post Industrial Recycled Content: 0%
 Manufacturing Location: Rockford, MN



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

Typical Properties

Property	Part 1	Part 2
Base:	Polymeric MDI	Polyol Component
Color:	Dark brown	Red
Viscosity:	200-400 cPs	390-530 cPs
Density:	9.40 – 10.40 lb/gal	8.35 – 8.60 lb/gal
Specific Gravity:	1.22	1.02
V.O.C. Content:	50 grams/liter	

Packaging Data

Containers:	5-gallon (19 L) Bag in Box each, Part 1 and Part 2		
Reaction Time:	Boards must be placed into the I.S.O.Stick Insulation Adhesive (Winter Grade) before it reaches tack-free state. Boards may be placed into adhesive shortly after it has reached its maximum rise, typically within 2 minutes. Substrate Temperature: 25 °F (-3 °C) to 65 °F (18 °C) Tack-Free State: 3-5 minutes		
Coverage:	Coverage rates are applicable when the I.S.O.Stick Insulation Adhesive (Winter Grade) is mixed at a 1:1 ratio and applied in the proper bead spacing (serpentine pattern) at a bead width of 5/8" - 1" (0.6 – 25.4 mm). Coverage rate will vary as bead spacing is decreased. Coverage rate may also decrease due to irregularities in substrate. The coverage rate at roof perimeter and corner sections may vary per roof system design requirements.		
	Application Substrate	Coverage (ft²/gal)	Bead Spacing (field of roof)
	Insulation, Wood, Concrete	170 – 200	12" (305 mm) o.c.
	Smooth BUR, Modified Bitumen	150 – 170	12" (305 mm) o.c.
	Metal, Gypsum	100 – 120	12" (305 mm) o.c.

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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	Positive adhesion test required.
Cementitious Woodfiber	Positive adhesion test required.
Existing Asphalt and Modified Bitumen Roofs (mineral or smooth surfaced)	Positive adhesion test required.
Lightweight Concrete	Acceptable Lightweight Concrete substrates include cellular or air-entrained concrete. Lightweight Concrete substrates with aggregate (such as perlite or vermiculite) are not acceptable.
Plywood	5/8" thick min.
Coal tar Pitch	Positive adhesion test required.
ISOGARD™ GL / ISO 95+™ GL, ISOGARD CG / RESISTA, ISOGARD HD, Woodfiber products, DensDeck Products, Expanded Polystyrene, Extruded Polystyrene	Non-Firestone brand insulations require a positive adhesion test.
Existing Single Ply roofs	Not acceptable
Fiberglass insulation	Not acceptable
Perlite insulation	Not acceptable

Existing substrates containing residual asphalt must be cleaned and scraped smooth as possible. The substrate shall be smooth, flat, clean, dry, free of sharp fins, or foreign materials. All perimeters, deck seams and all penetrations must be sealed to prevent air infiltration through the deck. Firestone recommends an expanding foam or similar product be used.

Necessary Equipment:

The PaceCart and PaceCart Static mixing tips are required for application of I.S.O.Stick Insulation Adhesive (Winter Grade). They both are available for purchase through local distribution, not directly from Firestone. NOTE: The Roofing Contractor is responsible for inspecting and maintaining PaceCart dispenser.

Please contact the Firestone Technical Services Department at 1-800-428-4511 for further information.

This sheet is meant to highlight Firestone products and specifications and is subject to change without notice. Firestone takes responsibility for furnishing quality materials which meet published Firestone product specifications or other technical documents, subject to normal roof manufacturing tolerances. Neither Firestone nor its representatives practice architecture. Firestone offers no opinion on and expressly disclaims any responsibility for the soundness of any structure. Firestone accepts no liability for structural failure or resultant damages. Consult a competent structural engineer prior to installation if the structural soundness or structural ability to properly support a planned installation is in question. No Firestone representative is authorized to vary this disclaimer.