

Product Data Sheet

GenFlex ISO Bond Insulation Adhesive

Item Description	Item Number
Part 1: 5-gallon (19 L) bag-in-box	W590052001
Part 2: 5-gallon (19 L) bag-in-box	W590052002

Description

ISO Bond is a two-component, low-rise polyurethane insulation adhesive applied in beads for adhesive attachment of GenFlex-approved roof insulations to acceptable substrates as allowed by GenFlex specifications. ISO Bond is specifically designed to be dispensed using the PaceCart[™] (or similar low pressure dispensing system), which simultaneously pumps ISO Bond Parts 1 and 2 to a static mixer, allowing a properly mixed bead of adhesive to be applied to the receiving substrate. GenFlex standard warranties are available up to a 20-year warranty period. Please refer to the GenFlex website at www.genflex.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. The substrate must be clean, smooth, dry, free of sharp edges, loose and foreign materials, oil, grease, and other contaminants.
3. The PaceCart (or similar low pressure dispensing system) must be used to install ISO Bond Insulation Adhesive.
4. Install ISO Bond only when ambient conditions, bonding substrates and insulations exceed 40 °F (4 °C) and rising.
5. To mix and dispense ISO Bond with the PaceCart, properly install the ISO Bond Parts 1 and 2 onto the PaceCart per manufacturer's instructions. To install the adhesive, open both valves located on the PaceCart applicator gun to start application of the adhesive to the substrate. The adhesive should be properly mixed in a 1:1 ratio through the attached static mix tip. When properly mixed, there should be no marbling in the adhesive.

NOTE: If an alternative dispensing system is used, follow manufacturer's operating instructions.

6. Apply the adhesive on the substrate in beads spaced a maximum of 12" (300 mm) on center, as specified to meet wind uplift requirements. Allow adhesive to rise ¾"- 1" (19.0 mm – 25.4 mm) and then lay the suitable insulation into position.
7. To ensure that the insulation makes adequate contact with the ISO Bond adhesive during the critical set-up period, set the insulation board 4' x 4' (1.22 m x 1.22 m) maximum] in fresh ISO Bond before a skim coat develops.

Method of Application Continued

8. Thoroughly walk on each insulation board immediately after setting it to ensure the substrate and insulation is in complete contact while the ISO Bond sets. Continue to place pressure using weighty objects such as adhesive pails on the insulation until the adhesive sets (typically 4 - 8 minutes) to ensure proper adhesion.
9. To store previously opened ISO Bond containers, close the valves located on the gun and turn off the pump on the PaceCart. Remove and discard the static mixing tip. Relieve pressure in the adhesive lines by opening and closing the valves on the adhesive gun. Keep Part 1 and Part 2 containers of ISO Bond connected to the PaceCart.

Reaction Time

- Boards must be placed into the ISO Bond 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:
 - PaceCart Application: 40 °F+ (4.4 °C+); High Pressure Heated Spray Application: 35 °F+ (1.7 °C+)
 - Tack-Free State: 3 – 5 minutes; Set-up: 10 – 12 minutes

Coverage Rate

These coverage rates are applicable when the ISO Bond is mixed with 1:1 ratio and applied in the proper bead spacing (serpentine pattern) at a bead width of 5/8" – 1" (15.9 – 25.4 mm). Coverage rates will vary if spacing is increased. Coverage rate may be reduced due to irregularities in substrate. The coverage rate for ISO Bond at roof perimeter and corner sections may vary per roof system design requirements.

- Insulation, wood, concrete: 180 – 250 ft²/gal (4.4 – 6.1 m²/L) with 12" (305 mm) bead spacing
- Smooth BUR, modified bitumen: 150 – 170 ft²/gal (3.7 – 4.2 m²/L) with 12" (305 mm) bead spacing
- Metal, gypsum: 100 – 120 ft²/gal (2.5 – 2.9 m²/L) with 12" (305 mm) bead spacing

Typical Properties	
Substrate	NOTE
Structural Concrete (New)	New poured decks must have a min 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 LWC substrates include cellular or air-entrained concrete. Lightweight concrete substrates with aggregate (such as perlite or vermiculite) are not acceptable.
Plywood	5/8"(15.9 mm) thick min
Coal Tar Pitch	Positive adhesion test required.
GenFlex Polyiso Insulation/GenFlex GL ISO, GenFlex Coated Glass Facer Polyiso/GenFlex CG ISO, GenFlex 1/2" HD ISO/GenFlex HD ISO, GenFlex HD Composite, Wood Fiberboard, Gypsum Coverboards, EPS, XPS	Non-GenFlex 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 ISO Bond insulation adhesive. They both are available for purchase through local distribution, not from GenFlex.

NOTE: The Roofing Contractor is responsible for inspecting and maintaining PaceCart.

NOTE: If an alternative dispensing system is used, follow manufacturer's operating instructions.

Shelf Life

The shelf life is 18 months when stored according to the above recommendations.

Storage

- Store in original unopened containers between 60 °F (16 °C) and 80 °F (27 °C) until ready for use.
- Do not store in direct sunlight.
- Do not allow ISO Bond to freeze.
- Ship and store product with handle side up and keep caps of nozzle closed tightly.
- Do not expose to moisture.

Precautions

- Review applicable Safety Data Sheet prior to use.
- Personnel who are sensitive/allergic to isocyanate or polyurethane should not work with ISO Bond.
- At the start and throughout each workday, test samples made with ISO Bond should be created to verify that proper mixing, set-up and overall adhesion of insulation to substrate is being achieved before proceeding.
- 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 cartons.
- 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).

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	Typical Values-Part 1	Typical Values-Part 2
Base	Polymeric MDI	Polyurethane Component
Color	Dark brown	Red
Viscosity	150 – 350 cP	390 – 530 cP
Density	10.16 lb/gal (1.22 kg/L)	8.50 lb/gal (1.02 kg/L)
Specific Gravity	1.22	1.02
V.O.C. Content	11 g/L	11 g/L

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

This sheet is meant to highlight GenFlex products and specifications and is subject to change without notice. Amrize takes responsibility for furnishing quality materials that meet published GenFlex product specifications or other technical documents, subject to normal manufacturing tolerances. Neither Amrize nor its representatives practice architecture. Amrize offers no opinion on and expressly refuses any responsibility for the soundness of any structure. Amrize 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 Amrize representative is authorized to vary this disclaimer.