

FAST™ Dual Cartridge Adhesive



Overview

Carlisle's FAST Dual Cartridge Adhesive is a low-rise, VOC-free, construction-grade, two-component polyurethane adhesive that is designed to bond Carlisle's insulations and FleeceBACK® membranes to a variety of substrates. FM Approvals have been achieved over a variety of deck types and substrates.

FAST Dual Cartridge Adhesive is compatible with: wood fiberboard, polyisocyanurate insulation, EPS, extruded polystyrene, DensDeck®, SECUROCK®, OSB, SecurShield® HD, and SecurShield HD+.

Compatible deck types include: concrete, cellular lightweight concrete, gypsum, cementitious wood fiber, wood, and painted or galvanized steel.

FAST Dual Cartridge Adhesive is also compatible with the following substrates for re-cover applications: smooth (previously exposed) BUR, mineral cap sheets, smooth (previously exposed) or granulated SBS mod bit, SPF, and Carlisle's VapAir Seal™ 725TR Air and Vapor Barrier/Temporary Roof.

Features and Benefits

- » Can be used for virtually any re-roofing project
- » Ideal for smaller, more cut-up projects where mobilization of large equipment is not feasible
- » Can be applied using standard-size manual, battery-operated, or pneumatic dual cartridge caulk guns
- » Provides excellent wind uplift resistance
- » Application produces very little noise and odor – excellent for re-roofing occupied buildings

Coverage Rate

FAST Dual Cartridge Adhesive is applied in beads or ribbons at 4", 6", or 12" on center (o.c.). Bead spacing is dependent upon several factors; including the project's wind zone, building height, and code requirements.

Square Feet per Carton	4" o.c.	6" o.c.	12" o.c.
For applications in temps of 50°F and above.	200 sq ft/CT	300 sq ft/CT	600 sq ft/CT

Each carton contains 4 sets of cartridges

* Rough, uneven or porous surfaces will require more adhesive than the rates listed above.

Application

1. The surface upon which the adhesive is to be applied shall be smooth, dry, free of fins, sharp edges, loose and foreign materials, oil and grease, and standing water. All sharp projections and loose material shall be removed by sweeping, blowing, or vacuum cleaning. **Previously unexposed asphalt must be primed with CAV-GRIP™ III.**
2. Seal gaps between the wall/penetration and concrete deck with Carlisle 725TR or other suitable material to avoid condensation issues and positive pressure from air infiltration.
3. When re-roofing sprayed-in-place (SPF) urethane roofs, all wet areas must be removed. The surface must then be scarified or perforated (depending on the coating) before applying FAST Dual Cartridge Adhesive.
4. Proper adhesion of existing roof coatings to their substrate must be verified prior to bonding to these materials.
5. Fibrous cement decks must be investigated for their ability to retain liquid adhesive, as some types of fibrous cement may allow liquid adhesive to flow through the deck.
6. Apply FAST Dual Cartridge Adhesive when the substrate and ambient temperature are 50°F (10°C) and above.

Design Recommendation:

Seal gaps between the wall/penetration and concrete deck with Carlisle 725TR, Flashing Foam, or other suitable material, to avoid condensation issues and positive pressure from air infiltration.

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Insulation Attachment

1. Apply FAST Dual Cartridge Adhesive to the substrate at 4", 6", or 12" on center with a minimum ½" wet bead, achieving light yellow color foam. For steel decks, extrusion of adhesive must run parallel with, and be on top of, all of the flutes.

Building Height	Bead Spacing (Perimeter)	Bead Spacing (Field)
0' – 25'	6" o.c. - 4' perimeter	12" o.c.
25' – 50'	6" o.c. - 8' perimeter	12" o.c.
50' – 75'	6" o.c. - 12' perimeter	12" o.c.
75' – 100'	6" o.c. - 16' perimeter	12" o.c.
100' or greater	Contact Carlisle for requirements	Contact Carlisle for requirements

Typical properties and characteristics are based on samples tested and are not guaranteed for all samples of this product. This data and information is intended as a guide and does not reflect the specification range for any particular property of this product.

2. Place insulation boards (maximum 4' x 4' insulation boards when adhesive is extruded at 12" o.c. or when boards exceed 4" thickness, or 4' x 8' insulation boards when adhesive is applied at full spray, 4", or 6" beads) into adhesive after allowing it to rise and develop "string/body". String time will vary based on environmental conditions like temperature and humidity. Do not allow the adhesive to over-cure prior to setting insulation boards. Bead spacing guidelines for 5-, 10-, or 15-year, 55-mph warranties are listed below. **Previously unexposed asphalt must be primed with CAV-GRIP III.**

Contact Carlisle's Project Review department regarding bead spacing for 20-and 30-year warranties and/or warranties with wind speeds higher than 55 mph.

3. Designate one person to walk boards into place and then roll with a 150-lb. segmented roller 5 to 7 minutes from the initial adhesive application. Boards may be temporarily weighted or relief cut where necessary to keep boards in constant contact with the adhesive until adhesive is cured.
4. At the beginning of the insulation attachment process and periodically throughout the day, check the adhesion of boards to ensure a tight bond has been created and maximum contact has been achieved.
5. Ribbon spacing is minimum. Depending on warranty length and wind coverage, ribbon spacing may be reduced. Refer to published specification and warranty.

Review Carlisle specifications and details for complete application information.

FleeceBACK Attachment

Slide-in Method:

1. Unroll FleeceBACK sheet and position. Fold the sheet back in half lengthwise (end-to-end).
2. Apply FAST Adhesive to the substrate at 4", 6", or 12" on center with a min. ½" wet bead. Ensure end laps are protected from adhesive.
3. Once "string time" occurs, gradually feed FleeceBACK sheet into FAST Adhesive, checking for "string/body" every few feet. Stop feeding FleeceBACK sheet into adhesive when applicator reaches adhesive that has NOT developed "string/body". Immediately begin to roll membrane width-wise with a 150-lb. segmented weighted roller. Repeat process until FleeceBACK sheet is fully installed.

Roll-in (Mod Bit) Method:

1. Keeping the FleeceBACK sheet on the core, position roll of FleeceBACK membrane at the designated starting point.
2. Apply FAST Adhesive to the substrate at 4", 6", or 12" on center with a min. ½" wet bead. Ensure end laps are protected from adhesive.
3. Once "string time" occurs, gradually roll FleeceBACK membrane into FAST Adhesive, checking for "string/body" every few feet. Stop rolling FleeceBACK into adhesive when applicator reaches adhesive that has NOT developed "string/body". Immediately begin to roll membrane width-wise with a 150-lb. segmented weighted roller. Repeat process until FleeceBACK sheet is fully installed.

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Precautions

- » Review the applicable Safety Data Sheet for complete safety information prior to use.
- » The foam produced is an organic material; it must be considered combustible and may constitute a fire hazard. The foam adhesive must not be left exposed or unprotected. Shield from heat and sparks.
- » Do not smoke during application.
- » Use this product with adequate ventilation. Avoid breathing vapors. Wear a NIOSH- or MSHA-approved respirator for organic vapors with prefilters and solvent-resistant cartridges if concentrations of MDI exceed the TLV or are unknown. If inhaled, remove to fresh air and administer oxygen if breathing is difficult. Consult a physician immediately. Proper safety training is essential for all persons involved in the installation process.
- » Avoid contact with eyes. Safety glasses or goggles are required. If splashed in eyes, immediately flush with plenty of clean water for at least 15 minutes and contact a physician immediately.
- » Avoid contact with skin. Wear long sleeves and pants. Wash thoroughly after handling. In case of contact with skin, thoroughly wash affected area with soap and water or corn oil. NOTE: Nitrile gloves are required when handling Part A directly.
- » Jobsite storage temperatures in excess of 90°F (32°C) may affect product shelf life and lead to leakage around the bottom seal. When temperatures are in excess of 90°F (32°C) utilize white membrane or material to shield the cartridges from direct sunlight. Should the components be stored at temperatures lower than 55°F (13°C), restore to room temperature prior to use. Do not allow FAST Dual Cartridge Adhesive to freeze.
- » High-slope applications may require beads to be applied to the back of the insulation board on a flat surface.
- » When stopping or pausing for more than 30 – 60 seconds, REMOVE THE NOZZLE IMMEDIATELY from partially used cartridges. Wipe opening with a clean rag and re-install plastic stopper. When application resumes, ensure opening in each side is clear and install new nozzle.
- » KEEP OUT OF THE REACH OF CHILDREN.

WARNING (CAUTION): Failure to remove nozzle from partially used cartridges will cause increased internal pressure upon reuse. This can cause the cartridge to rupture, which can result in personal injury.

Typical Properties and Characteristics

Property	Part A (1) Polymeric Isocyanate	Part B (2) Polyols, Surfactants & Catalysts
Viscosity (CPS @ 25°C)	250 cps	250 cps
Avg. Net Weight	10.25 lbs/gal	8.75 lbs/gal
Packaging	0.2 gal (0.75 L) per cartridge	0.2 gal (0.75 L) per cartridge
Mixing Ratio by Volume	1:1 Part A to Part B	1:1 Part A to Part B
Shelf Life	1 year	1 year

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LEED® Information

Pre-consumer Recycled Content	0%
Post-consumer Recycled Content	0%
Manufacturing Location	Carlisle, PA
VOC Content	0 g/L

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Substrate Compatibility

Insulation/Underlayments		Roof Decks		Existing Roofing Materials	
HP Polyiso	Yes	Concrete	Yes	Smooth BUR	Yes ⁵
HP Recovery Board	Yes	Cellular Lt. Wt. Concrete	Yes	Gravel BUR	Yes ⁶
Expanded Polystyrene (EPS)	Yes ¹	NVS Lt. Wt. Concrete	Yes	Mineral Cap Sheet	Yes
Extruded Polystyrene	Yes ²	Gypsum	Yes	Granular Modified-Bitumen	Yes
New Sprayed Foam	Yes	Cementitious Wood Fiber	Yes	Smooth Modified-Bitumen	Yes
Scarified SPF	Yes	Plywood/OSB	Yes	Coal Tar Pitch	Yes ⁷
DensDeck	Yes	Painted Steel	Yes	Aluminum-Coated BUR	Yes ⁸
SECURROCK	Yes	Galvanized Steel	Yes ³	Acrylic-Coated SPF	Yes
Oriented Strand Board	Yes	Acoustical Steel	Yes ⁴	Silicone-Coated SPF	Yes ⁹
SecurShield	Yes	Wood Plate	Yes	Aged EPDM, Hypalon, TPO	Yes ^{10,12}
				Unexposed Asphalt	Yes/No ¹¹

1. EPS insulation cannot be used directly beneath Sure-Seal® (Black) FleeceBACK membrane unless a light-colored coating is specified. Both Sure-White™ and Sure-Weld® FleeceBACK membranes may be installed directly over minimum 1.5-lb.-density EPS; however, to obtain UL & FM codes, an overlayment of HP Recovery Board, DensDeck, SECURROCK or HP Polyiso insulation is required.
2. For insulation attachment only.
3. For new galvanized steel decks, power-washing is necessary to remove finishing oil residue if present.
4. For acoustical steel decks, fill the flutes with fiberglass or other suitable fill insulation and tack in place with strips of duct tape 3' o.c., or other adhesive, prior to spraying the deck with FAST Adhesive.
5. Existing Smooth BUR must be Type III or IV asphalt if the (Black) FleeceBACK EPDM, FleeceBACK PVC and KEE HP or FleeceBACK TPO membrane is to be installed directly without insulation.
6. A minimum ½" HP Recovery Board or insulation is required over properly prepared gravel BUR. FleeceBACK membrane cannot be installed directly over a gravel/slag surface.
7. An insulation providing the necessary R-value must be specified to prevent the coal tar pitch from softening. FleeceBACK membranes cannot be installed directly to coal tar pitch.
8. Any loose coatings must be removed by power-washing or by physical abrasion prior to the application of FAST Adhesive. A test installation over the aluminum-coated smooth BUR is recommended to ensure the aluminum coating is fully adhered.
9. Silicone-coated substrates must be scarified (coating removed) prior to the application of FAST Adhesive.
10. Power-washing aged EPDM, Hypalon, or TPO membrane is required prior to the application of FAST Adhesive.
11. Requires CAV-GRIP III for all applications.
12. Contact Carlisle for specific requirements on TPO recover.