TDI | Texas Department of Insurance

PO Box 12030 | Austin, TX 78711 | 800-578-4677 | tdi.texas.gov

Product Evaluation

RC152 | 0521 Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: RC-152

Effective Date: May 1, 2021
Re-evaluation Date: May 2025

Product Name: TARCO Modified Bitumen Roofing Systems

Manufacturer: TARCO
One Information Way
Suite 225
Little Rock, AR 72202
(501) 945-4506

General Description:

LeakBarrier® EasyStick™ Plus is a self-adhered, polyester reinforced, granular surfaced, SBS modified bitumen roll roofing membrane intended for use as a cap sheet.

LeakBarrier® EasyLay™ is mechanically attached, polyester reinforced, asphalt based, roll roofing material intended for use as a base or plysheet.

LeakBarrier® EasyBase™ is a self-adhered, fiberglass reinforced, smooth surfaced, SBS modified bitumen roll roofing membrane intended for use as a base or interply sheet.

LeakBarrier® EasyTorch™ SA Base is a self-adhered, fiberglass reinforced, smooth surfaced, SBS modified bitumen roll roofing membrane intended for use as a base or interply sheet.

LeakBarrier® EasyTorch™ APP Smooth is a torch applied, polyester reinforced, smooth surfaced, APP modified bitumen roll roofing membrane intended for use as a base, interply or cap sheet.

LeakBarrier® EasyTorch™ APP Granular is a torch applied, polyester reinforced, granular surfaced, APP modified bitumen roll roofing membrane intended for use as a cap sheet.

Limitations:
General installation Requirements:
All IRC and the IBC requirements must be satisfied, and manufacturer's installation instructions followed, unless otherwise specified by this product evaluation.

Roof Slope: The roof must have a minimum slope of 1/4:12.

Installation over an Existing Roof Covering (Roof Recover):
Inspection of Roof Covering Recover Installation: Inspection of the roof covering recover installation must be by a Texas Department of Insurance (TDI) appointed engineer. The TDI appointed engineer must determine if the roof framing can support the combined weight of the existing roof covering and the roof covering recover.

Roof Covering Replacement versus Roof Covering Recover: All existing roof coverings must be completely removed, and a new roof covering installed if any of the following conditions occur:
- The existing roof or roof covering is water soaked or has deteriorated to the point that the existing roof or roof covering is not adequate as a base for the additional roof covering.
- The existing roof has two or more applications of any type of roof covering.

Positive Drainage: The roof covering recover application must not be required to meet the minimum roof slope of 1/4" per foot if positive drainage is provided.

Roof Framing: The maximum allowable spacing of the roof framing must be as specified in this evaluation report.

Roof Deck: The existing roof deck must be as specified in each assembly listed in this evaluation report. The underside of the roof deck must be examined by the TDI appointed engineer for corrosion or deterioration. If corrosion exists, then it must be treated with a rust inhibitor. A fastener withdrawal resistance test must be conducted in the corroded or deteriorated area to determine if the withdrawal resistance of the fastener complies with the minimum fastener requirements for the roof covering recover application. If the tested fastener fails to comply, then the deteriorated roof deck must be replaced.

Fastener Withdrawal Resistance: The fastener withdrawal resistance must be conducted in accordance with ANSI/SPRI FX-1-2006 and this evaluation report.

Fasteners used for the installation of the roof covering recover to the existing roof deck must be as specified in the Installation Instructions section of this evaluation report. For the withdrawal test, the fasteners must be installed in the existing roof deck as required for the roof covering recover installation. A TDI appointed engineer must review the data to verify the integrity of the existing roof deck and to compare results of the withdrawal tests with the minimum fastener requirements for the roof covering recover application.

The TDI appointed engineer must document all test results, including the locations on the roof surface where the tests are performed. A minimum of ten withdrawal resistance tests are required for a roof area up to 50,000 square feet (a minimum of 50 percent of the tests must be conducted at the perimeter and the corners). Five additional tests are required for each additional 50,000 square feet of roof area or portion thereof (a minimum of 50 percent of the tests must be conducted at the perimeter and the corners). The tests must be located evenly spread across the surface of the roof. At least one withdrawal test must be performed on each roof level if the roof consists of multiple levels.

The withdrawal resistance of each tested fastener must comply with the minimum fastener requirements for the roof covering recover application. If a tested fastener fails to comply, then the TDI appointed engineer must examine that area for deterioration of the roof deck by removing the existing roof covering in that area. If that area of the roof deck has deteriorated, then the deteriorated roof deck must be replaced.

Existing Roof Covering Preparation: The existing roof covering must be prepared to receive the roof covering recover as specified in the manufacturer's installation instructions.

The existing roof covering surface must be dry and free of dirt and debris. If the existing roof covering is gravel surfaced, then the loose gravel must be completely removed. The surface of the existing roof covering must be relatively smooth.

If the existing roof covering has blisters, buckles, ridges, folds, or other deformations, then they must be removed, and the surface patched to provide a smooth surface.

If the existing roof covering has loose fasteners, then the existing membrane must be cut open, the loose fasteners removed, and the surface patched to provide a smooth surface.

Roof Covering Recover Installation: Installation of the roof covering recover must be specified in the Installation Instructions section of this evaluation report

APPENDIX 1: Attachment Requirements for Wind Uplift Resistance

Table	Deck	Application	Description	Page
1A	Wood	New, Re-roof (Tear-Off) or Recover	Mechanically Attached Insulation, Bonded Roof Cover	5
1B	Wood	New, Re-roof (Tear-Off) or Recover	Mechanically Attached Base Sheet, Bonded Roof Cover	6
1C	Wood	New or Re-roof (Tear-Off)	Non-Insulated, Bonded Roof Cover	7
2A	Concrete	New or Re-roof (Tear-Off)	Non-Insulated, Bonded Roof Cover	7

The following notes apply to the systems outlined herein:

1. The roof system evaluation herein pertains to above-deck roof components.
2. Unless otherwise noted, fasteners and stress plates for insulation attachment must be as follows. Fasteners must be of sufficient length for the following engagements:
   Wood Deck: OMG #12 or #14 HD with OMG 3" Galvalume Steel Plate or Tru-Fast DP or HD with MP-3 Plates. Long enough to penetrate a minimum of 1/4" below the wood deck.
3. For mechanically attached components over existing decks, fasteners must be tested in the existing deck for withdrawal resistance. A qualified design professional must review the data for comparison to the minimum requirements for the system. Testing and analysis must be in accordance with this evaluation report.
4. "MDP" = Maximum Design Pressure is based on test results for wind load uplift resistance based on allowable wind loads.

Installation:

Table 1A: Wood Deck - Mechanically Attached Insulation, Bonded Roof Cover								
System No.	Deck	Base Insulation	Top Insulation		Roof Cover			MDP (psf)
		Type	Type	Attachment	Base Sheet	Ply Sheet	Cap Sheet	
1	Min. 19/32" plywood at max. 24"	(Optional) One or more layers, any combination, loose laid	Min. 3/8" SECUROCK Gypsum-Fiber Roof Board	OMG #12 screws with 0.220" thread diameter and 0.435" head diameter or OMG #14 screws with thread diameter of 0.245" and head diameter of 0.435" with OMG 3-inch Galvalume Steel plate with a thickness of 0.018". Or Trufast DP (#12) screws with a 0.209" thread diameter and 0.425" head diameter or Trufast HD (#14) screws with a 0.235 thread diameter and 0.425" head diameter with Trufast 3" Metal Insulation Plates with a diameter of 3.23" and a thickness of 0.16".	EasyBase	(Optional) EasyBase	EasyStick Plus™	-52.5
					EasyTorch™ SA Base	(Optional) EasyTorch™ SA Base or EasyTorch™ APP Smooth	EasyTorch™ APP Granular or EasyTorch™ APP Smooth	

Table 1A: Wood Deck - Mechanically Attached Base Sheet, Bonded Roof Cover								
System No.	Deck	Insulation Layer	Base Sheet			Roof Cover		MDP (psf)
			Type	Fasteners	Attachment	Ply	Cap	
2	Min. 19/32" plywood at max. 24"	Any type, thickness or combination, loose laid followed by min. 3/8" Securock.	Easylay™	OMG #12 screws with 0.220" thread diameter and 0.435" head diameter or OMG #14 screws with thread diameter of 0.245" and head diameter of 0.435" with OMG 3-inch Galvalume Steel plate with a thickness of 0.018" Or Trufast DP (#12) screws with a 0.209" thread diameter and 0.425" head diameter or Trufast HD (#14) screws with a 0.235 thread diameter and 0.425" head diameter with Trufast 3" Metal Insulation Plates with a diameter of 3.23" and a thickness of 0.16".	10" o.c. at 4" laps and 10" o.c. at two, equally spaced, staggered center rows.	EasyBase™	EasyStick Plus™	-52.5
						EasyTorch™ SA Base	EasyTorch™ APP Granular or EasyTorch™ APP Smooth	

Installation (continued):

Table 1B: Wood Deck - Mechanically Attached Base Sheet, Bonded Roof Cover								
System No.	Deck	Insulation Layer	Base Sheet			Roof Cover		MDP (psf)
			Type	Fasteners	Base Sheet Attachment	Ply	Cap	
3	Min. 19/32" plywood at max. 24"	Any type, thickness or combination, loose laid followed by min. 3/8" Securock.	Easylay™	0.131 shank diameter, 0.375 head diameter and minimum 1-1/4" length annular ring shank nails and minimum 32-gauge, 1-5/8" diameter tin caps.	7" o.c. at 4" laps and 7" o.c. at three, equally spaced, staggered center rows.	EasyBase™	EasyStick Plus™	-60
						EasyTorch™ SA Base	EasyTorch™ APP Granular or EasyTorch™ APP	

Table 1B: Wood Deck - Mechanically Attached Base Sheet, Bonded Roof Cover								
System No.	Deck	Insulation Layer	Base Sheet			Roof Cover		MDP (psf)
			Type	Fasteners	Base Sheet Attachment	Ply	Cap	
4	Min. 19/32" plywood at max. 24"	Any type, thickness or combination, loose laid followed by min. 3/8" Securock.	Easylay™	OMG #12 screws with 0.220" thread diameter and 0.435" head diameter or OMG #14 screws with thread diameter of 0.245" and head diameter of 0.435" with OMG 3" Galvalume Steel plate with a thickness of 0.018". Or Trufast DP (#12) screws with a 0.209" thread diameter and 0.425" head diameter or Trufast HD (#14) screws with a 0.235 thread diameter and 0.425" head diameter with Trufast 3" Metal Insulation Plates with a diameter of 3.23" and a thickness of 0.16".	10" o.c. at 4" laps and 10" o.c. at two, equally spaced, staggered center rows.	EasyBase™	EasyStick Plus™	-60
						EasyTorch™ SA Base	EasyTorch™ APP Granular or EasyTorch™ APP Smooth	

Installation (continued):

Table 1C: Wood Deck - Bonded Roof Cover					
System No.	Deck		Roof Cover		MDP (psf)
	Type	Joint Treatment	Ply	Cap	
5	Min. 19/32" plywood at max. 24"	None	(Optional) Easy Base (Optional) EasyTorch™ SA Base or EasyTorch™ APP Smooth	EasyStick Plus EasyTorch™ APP Granular or EasyTorch™ APP Smooth	-75

Table 2A: Concrete Deck –Bonded Roof Cover					
System No.	Deck	Roof Cover			MDP (psf)
		Base	Base sheet Attachment	Cap	
6	Structural Concrete	Easy Torch™ APP Smooth	Torch Applied	Easy Torch™ APP Granular or EasyTorch™ APP Smooth	-670

Note: Keep the manufacturer's installation instructions available on the job site during the installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.