



DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER)  
BOARD AND CODE ADMINISTRATION DIVISION

**NOTICE OF ACCEPTANCE (NOA)**

MIAMI-DADE COUNTY  
PRODUCT CONTROL SECTION  
11805 SW 26 Street, Room 208  
Miami, Florida 33175-2474  
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**The Barrett Company, LLC**  
2926 Chester Ave.  
Cleveland, OH 44114

**SCOPE:**

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER - Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein and has been designed to comply with the Florida Building Code including the High Velocity Hurricane Zone of the Florida Building Code.

**DESCRIPTION: RamTough 250 Waterproofing System**

**LABELING:** Each unit shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA consists of pages 1 through 13.

The submitted documentation was reviewed by Jorge L. Acebo.



NOA No.: 21-0602.16  
Expiration Date: 03/23/28  
Approval Date: 03/23/23  
Page 1 of 13

## ROOFING SYSTEM APPROVAL

**Category:** Roofing  
**Sub-Category:** Waterproofing  
**Deck Type:** Concrete  
**Material:** Rubberized Asphalt  
**Maximum Design Pressure:** -462.5 psf

### TRADE NAMES OF PRODUCTS MANUFACTURED OR LABELED BY APPLICANT

TABLE 1

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>
RamTough 250 Membrane	30 lbs. carton	CGSB-37.50-GP-50	A polymer modified rubberized bitumen hot fluid applied waterproofing membrane.
Ram 203	39" x 49' rolls	ASTM D6163	An SBS polymer-modified, fiberglass reinforced asphalt membrane protection course.
Ram 306	39" x 33' rolls	ASTM D6164	An SBS polymer-modified, polyester reinforced modified bitumen membrane with a ceramic granule surface protection Cap sheet.
Polyfelt 125 VP	39.4" x 327' rolls	Proprietary	A lightweight thermally bonded spun laid non-woven fabric polyester reinforcement.
Ram Tough Primer/Conditioner	5-gallon (42 lbs.) pails	ASTM D41	A general utility asphaltic primer/conditioner.
Ram 327 HDR	6", 9", 12", 18", 24" and 36" x 100' rolls	Proprietary	A heavy-duty uncured neoprene flashing material.

### PRODUCTS MANUFACTURED BY OTHERS:

TABLE 2

<u>Product</u>	<u>Dimensions</u>	<u>Test Specification</u>	<u>Product Description</u>	<u>Manufacturer</u>
STYROFOAM PLAZAMATE	Various, Min. 60 psi	ASTM C578 Type VII	Extruded polystyrene insulation (XPS)	DuPont de Nemours, Inc.
Concrete Paver	Min. 12" x 12" Min. 1½" thick Min. 7500 psi		Premanufactured concrete pavers for use as overburden surfacing	Generic
Thin-Set Mortar	50 lb. bags	ANSI A118.4	Thin-Set mortar	Generic
Portland Cement	94 lb. bags	ASTM C220	Type I Portland cement	Generic



## EVIDENCE SUBMITTED

<u>Test Agency</u>	<u>Test Identifier</u>	<u>Test Specification</u>	<u>Date</u>
Nemo-ETC, LLC.	4w-ERD-20-SSASP-01.A	CAN/CGSB-37.50-M89	06/29/20
	4q-SOP-20-SSMBB-01.D	ASTM D6164/TAS 110	11/05/20
	4q-SOP-20-SSMBB-01.A	ASTM D6163	11/05/20
	4p-SOP-21-SSLAP-04.A	ASTM D41	06/22/22
	4a-ERD-22-LWSUW-09.A.R1	TAS 114(D)	03/16/23
	4i-ERD-23-SSCRT-01.A	TAS 114(H)	01/25/23



## APPROVED ASSEMBLIES

- Deck Type 3:** Concrete Decks, Non-Insulated
- Deck Description:** Min. 2500 psi, structural concrete or concrete plank, with or without topping slab.
- System Type F(1):** Hot Fluid Applied Waterproofing Reinforced Membrane
- Surface Condition:** All surfaces shall be dry, smooth, free of depressions, voids, and protrusions, and clean and free of unapproved curing compounds, form release agents, and other surface contaminants. Substrate shall be smooth, free of voids, surface spalls, laitance, honeycombs, and sharp or irregular protrusions. All honeycombs, voids, cracks, and pockmarks shall be patched with non-shrink grout, applied with a bonding agent. Corroded steel reinforcing shall be treated prior to concrete repair. Concrete surface preparation shall conform with ASTM D5295. Concrete around drains shall be depressed and sloped to promote positive water drainage.

All metal flashings shall be in place, securely attached and accurately fitted. Metal shall be cleaned of all process oils with a solvent cleaner. Metal shall be free of rust and contaminants. Wire brush surface prior to priming.

The substrate shall be cleaned to remove loose debris. The horizontal deck surface shall be cleaned with a power blower or filtered air compressor just prior to applying Ram Tough Primer/Conditioner. The use of power blowers or compressed air for cleaning shall comply with current OSHA and local regulations. Apply the Ram Tough Primer/Conditioner to the surfaces using a handheld sprayer evenly at a rate 400 SF/gallon (9.81 m<sup>2</sup>/L) depending on surface texture and porosity. Surface shall be tan to light brown when fully applied and dry. Mask all adjacent surfaces and avoid overspray. Fill all small voids and cracks with Ram Tough Primer/Conditioner and RamTough 250 prior to full application. Ram Tough Primer/Conditioner shall be allowed to dry tack-free before applying the RamTough 250. Drying time will vary depending on the temperature, wind, and sunlight. Ram Tough Primer/Conditioner shall present a tan to non-uniform, mottled brown appearance. Do not prime more area than will be covered with RamTough 250 in the same day. Pre-prime all areas which have been contaminated by dust or debris.

- Membrane Flashing:** Install a one-inch cant of RamTough 250 at exposed metal projections to extend from the primed metal out twelve-inches on to the deck. Allow the hot RamTough 250 to slightly cool and tool with a trowel. Install two-piece Ram 327 HDR Flashing Sheet, base portion first, or primed sheet metal sleeve flashing per published and current RamTough details.

At all curbs, projections, walls and other changes in plane, hot rubberized asphalt bitumen and reinforced flashings shall be installed prior to the field of the deck installation. Install base flashings in accordance with applicable RamTough flashing details and installation requirements. Install a flashing of RamTough 250 and Ram 327 HDR elastomeric sheeting wherever there is a vertical surface transition or change in plane.

**Membrane  
Flashing:  
(continued)**

The minimum required flashing height is eight-inches, with a maximum of 30-inches. Prime the area to the specified height and continue onto the deck. Allow the Ram Tough Primer/Conditioner to dry tack-free prior to application of RamTough 250. Use masking paper to avoid staining adjacent surfaces. Take precautions to avoid wind-carried overspray from damaging adjacent surfaces. Bond laps in the flashing sheet a minimum of three-inches in width with 1/8-inch thickness of hot RamTough 250. Apply 125-mils of RamTough 250 a minimum of four-inches wide to the horizontal plane and eight-inches up the vertical plane of the flashing, and immediately lay the neoprene sheet into the hot material on the horizontal surface, embed tight into the cove, following up the vertical surfaces. Sheeting shall be fully adhered a minimum of seven-inches on the vertical and free of any wrinkles or fish-mouths. Using a hot roller or squeegee, apply a minimum 125-mils of RamTough 250 over the entire assembly. The neoprene shall be tightly pressed into the cover area. Neoprene flashing with void space below it is unacceptable and shall be cut out and re-flashed. Install a termination bar with appropriate fasteners eight-inch on center. Seal the top edge of all flashings before the end of the day and provide metal counterflashing to protect the top termination of the installed system.

As soon as the Ram Tough Primer/Conditioner has fully dried, dress cracks. Where cracks are equal or less than 1/16-inch in width apply a 125-mil thick layer of RamTough 250 over a primed substrate, six-inches on either side of the crack. Where cracks range from 1/16-inch to 1/4-inch in width apply a 125-mil thick layer of RamTough 250 over a primed substrate and embed a minimum six-inch wide Ram 327 HDR neoprene sheeting into hot RamTough 250. The sheet shall extend three-inches to either side of crack and be free of fish-mouths. Lap separate lengths of Ram 327 HDR sheeting a minimum of three-inches and adhere with 90-mil thick surfacing of hot RamTough 250.

At cold joints and construction joints, remove any existing pre-molded joint filler to a minimum depth of 1/2-inch. Prime both sides of the joint and allow to dry tack-free. Apply 125 mil thickness of RamTough 250 to each side of the primed joint, a minimum nine inches in width. Immediately embed one half of a six-inch width of Ram 327 HDR while RamTough 250 material is hot. Embed the other half of the sheet likewise on the other side of the joint. The sheet shall be fully adhered and free of wrinkles and fish-mouths.

Expansion joints shall be raised or in plane expansion joints. Install in compliance with RamTough and project approved details.

**Base Coat:**

Apply RamTough 250 bitumen starting at the low point of the deck, pour the bitumen into place and spread evenly, to a thickness of not less than 90-mils (approximately 60 lbs. per square), in an application width of approximately 44-inches with a straight blade squeegee. To help assure the proper application rate, a chalk line grid system is suggested to confirm the proper coverage. Assure that proper bitumen application is achieved with a regular quality assurance protocol.

- Reinforcement:** While the bitumen is still hot, install one layer of Polyfelt 125 VP reinforcing fabric into the RamTough 250. Standing off to the side and using a broom or squeegee, press fabric into the hot bitumen using care not to create wrinkles or fish-mouths. All end laps shall be overlapped a minimum of six inches. Ensure there is a solid coat of bitumen between all laps. All laps shall be laid in a shingle fashion, so no laps buck water. Follow-up with successive RamTough 250 and reinforcing layer, working up slope.
- As an option for a double reinforced system, after the first run of fabric has been installed, return to the same starting point, and install a second run of bitumen and reinforcement, overlapping the first course by 3-inches. All end laps shall be overlapped a minimum of six inches. Ensure there is a solid coat of bitumen between all laps. **In no place shall fabric touch fabric.**
- Top Coat:** Apply a top coat of RamTough 250 at a continuous thickness of not less than 125-mils, which equates to approximately 80 lbs. per square. While the surface coat is still hot, apply the specified protection course and press into place.
- Protection Course:** The RamTough 250 system shall receive a protection course of the Ram 306 cap sheet while the RamTough 250 is still hot. Overlap adjoining short edges (dry) a minimum of three inches to ensure complete coverage. Press into place.
- Ram 306 may be exposed for the life of the assembly.
- Integrity Test:** An ASTM D5957 Integrity Test shall be carried out by an approved laboratory for 24 – 48 hours prior to the application of any overburden. A written test report shall be generated detailing the test method and the test results.
- Inspection:** Contractor and system manufacturer shall inspect the fully installed system and provide a punch list in writing for correction and shall be completed by the contractor.
- Optional Surfacing:** Structural concrete slab, minimum 2500 psi shall be designed to comply with applicable Building Code requirements.
- Maximum Design Pressure:** -301.5 psf. (See General Limitation #9) without structural concrete surfacing. MDP Rating is N/A with structural concrete surfacing

**Deck Type 3:** Concrete Decks, Non-Insulated

**Deck Description:** Min. 2500 psi, structural concrete or concrete plank.

**System Type F(2):** Hot Fluid Applied Waterproofing Reinforced Membrane with Concrete (Paver) Overburden

**Surface Condition:** All surfaces shall be dry, smooth, free of depressions, voids, and protrusions, and clean and free of unapproved curing compounds, form release agents, and other surface contaminants. Substrate shall be smooth, free of voids, surface spalls, laitance, honeycombs, and sharp or irregular protrusions. All honeycombs, voids, cracks, and pockmarks shall be patched with non-shrink grout, applied with a bonding agent. Corroded steel reinforcing shall be treated prior to concrete repair. Concrete surface preparation shall conform with ASTM D5295. Concrete around drains shall be depressed and sloped to promote positive water drainage.

All metal flashings shall be in place, securely attached and accurately fitted. Metal shall be cleaned of all process oils with a solvent cleaner. Metal shall be free of rust contaminants. Wire brush surface prior to priming.

The substrate shall be cleaned to remove loose debris. The horizontal deck surface shall be cleaned with a power blower or filtered air compressor just prior to applying Ram Tough Primer/Conditioner. The use of power blowers or compressed air for cleaning shall comply with current OSHA and local regulations. Apply the Ram Tough Primer/Conditioner to the surfaces using a handheld sprayer evenly at a rate 400 SF/gallon (9.81 m<sup>2</sup>/L) depending on surface texture and porosity. Surface shall be tan to light brown when fully applied and dry. Mask all adjacent surfaces and avoid overspray. Fill all small voids and cracks with Ram Tough Primer/Conditioner and RamTough 250 prior to full application. Ram Tough Primer/Conditioner shall be allowed to dry tack-free before applying the RamTough 250. Drying time will vary depending on the temperature, wind, and sunlight. Ram Tough Primer/Conditioner shall present a tan to non-uniform, mottled brown appearance. Do not prime more area than will be covered with RamTough 250 in the same day. Pre-prime all areas which have been contaminated by dust or debris.

**Membrane Flashing:** Install a one-inch cant of RamTough 250 at exposed metal projections to extend from the primed metal out twelve-inches on to the deck. Allow the hot RamTough 250 to slightly cool and tool with a trowel. Install two-piece Ram 327 HDR Flashing Sheet, base portion first, or primed sheet metal sleeve flashing per published and current RamTough details.

At all curbs, projections, walls and other changes in plane, hot rubberized asphalt bitumen and reinforced flashings shall be installed prior to the field of the deck installation. Install base flashings in accordance with applicable RamTough flashing details and installation requirements. Install a flashing of RamTough 250 and Ram 327 HDR elastomeric sheeting wherever there is a vertical surface transition or a change in plane. The minimum required flashing height is eight-inches, with a maximum of 30-inches.





**Membrane  
Flashing:  
(continued)**

Prime the area to the specified height and continue onto the deck. Allow the Ram Tough Primer/Conditioner to dry tack-free prior to application of RamTough 250. Use masking paper to avoid staining adjacent surfaces. Take precautions to avoid wind-carried overspray from damaging adjacent surfaces. Bond laps in the flashing sheet a minimum of three-inches in width with 1/8-inch thickness of hot RamTough 250. Apply 125-mils of RamTough 250 a minimum of four-inches wide to the horizontal plane and eight-inches up the vertical plane of the flashing, and immediately lay the neoprene sheet into the hot material on the horizontal surface, embed tight into the cove, following up the vertical surfaces. Sheeting shall be fully adhered a minimum of seven-inches on the vertical and free of any wrinkles or fish-mouths. Using a hot roller or squeegee, apply a minimum 125-mils of RamTough 250 over the entire assembly. The neoprene shall be tightly pressed into the cover area. Neoprene flashing with void space below it is unacceptable and shall be cut out and re-flashed. Install a termination bar with appropriate fasteners eight-inch on center. Seal the top edge of all flashings before the end of the day and provide metal counterflashing to protect the top termination of the installed system.

As soon as the Ram Tough Primer/Conditioner has dried, dress cracks. Where cracks are equal or less than 1/16-inch in width apply a 125-mil thick layer of RamTough 250 over a primed substrate, six-inches on either side of the crack. Where cracks range from 1/16-inch to 1/4-inch in width apply a 125-mil thick layer of RamTough 250 over a primed substrate and embed a minimum six-inch wide Ram 327 HDR neoprene sheeting into hot RamTough 250. The sheet shall extend three-inches to either side of crack and be free of fish-mouths. Lap separate lengths of Ram 327 HDR sheeting a minimum of three-inches and adhere with 90-mil thick surfacing of hot RamTough 250.

At cold joints and construction joints, remove any existing pre-molded joint filler to a minimum depth of 1/2-inch. Prime both sides of the joint and allow to dry tack-free. Apply 125 mil thickness of RamTough 250 to each side of the primed joint, a minimum nine inches in width. Immediately embed one half of a six-inch width of Ram 327 HDR while RamTough 250 material is hot. Embed the other half of the sheet likewise on the other side of the joint. The sheet shall be fully adhered and free of wrinkles and fish-mouths.

Expansion joints shall be raised or in plane expansion joints. Install in compliance with RamTough and project approved details.

**Base Coat:**

RamTough 250 shall be applied starting at the low point of the deck, pour the bitumen into place and spread evenly, to a thickness of not less than 90-mils (approximately 60 lbs. per square), in an application width of approximately 44-inches with a straight blade squeegee. To help assure the proper application rate, a chalk line grid system is suggested to confirm the proper coverage. Assure that proper bitumen application is achieved with a regular quality assurance protocol.



**Reinforcement:** While the bitumen is still hot, install one layer of Polyfelt 125 VP reinforcing fabric into the RamTough 250. Standing off to side and using a broom or squeegee, press fabric into the hot bitumen using care not to create wrinkles or fish-mouths. All end laps shall be overlapped a minimum of six inches. Ensure there is a solid coat of bitumen between all laps. All laps shall be laid in a shingle fashion, so no laps buck water. Follow up with successive RamTough 250 and reinforcing layer, working up the slope.

As an option for a double reinforced system, after the first run of fabric has been installed, return to the same starting point, and install a second run of bitumen and reinforcement, overlapping the first course by 3 inches. All end laps shall be overlapped a minimum of six inches. Ensure there is a solid coat of bitumen between all laps. **In no place shall fabric touch fabric.**

**Top Coat:** Apply a topcoat of RamTough 250 at a continuous thickness of not less than 125-mils, which equates to approximately 80 lbs. per square. While the surface coat is still hot, apply the specified protection course and press into place to create a continuous bond.

**Protection Course:** RamTough 250 shall receive a protection course of Ram 306 cap sheet while still hot. Overlap adjoining short edges (dry) a minimum of three inches to ensure complete coverage, pressing the protection course into place.

**Integrity Test:** An ASTM D5957 Integrity Test shall be carried out by an approved laboratory for 24 – 48 hours prior to the application of any overburden. A written test report shall be generated detailing the test method and the test results.

**Inspection:** Contractor and system manufacturer shall inspect the fully installed system and provide a punch list in writing for correction and shall be completed by the contractor.

**Overburden:** Concrete pavers, having minimum 7500 psi compressive strength and 12” x 12” x 1 ½” dimensions, installed in either a Portland Cement or Thin-Set mortar bed applied with a ¼” x ¼” square notched trowel over the Ram 306 granulated surfaced membrane.

**Maximum Design Pressure:** -462.5 psf. (See General Limitation #9)



**Deck Type 3:** Concrete Decks, Insulated

**Deck Description:** Min. 2500 psi, structural concrete or concrete plank.

**System Type F(3):** Hot Fluid Applied Waterproofing Reinforced Membrane with Insulation

**Surface Condition:** All surfaces shall be dry, smooth, free of depressions, voids, and protrusions, and clean and free of unapproved curing compounds, form release agents, and other surface contaminants. Substrate shall be smooth, free of voids, surface spalls, laitance, honeycombs, and sharp or irregular protrusions. All honeycombs, voids, cracks, and pockmarks shall be patched with non-shrink grout, applied with a bonding agent. Corroded steel reinforcing shall be treated prior to concrete repair. Concrete surface preparation shall conform with ASTM D5295. Concrete around drains shall be depressed and sloped to promote positive water drainage.

All metal flashings shall be in place, securely attached and accurately fitted. Metal shall be cleaned of all process oils with a solvent cleaner. Metal shall be free of rust and contaminants. Wire brush surface prior to priming.

The substrate shall be cleaned to remove loose debris. The horizontal deck surface shall be cleaned with a power blower or filtered air compressor just prior to applying Ram Tough Primer/Conditioner. The use of power blowers or compressed air for cleaning shall comply with current OSHA and local regulations. Apply the Ram Tough Primer/Conditioner to the surfaces using a handheld sprayer evenly at a rate 400 SF/gallon (9.81 m<sup>2</sup>/L) depending on surface texture and porosity. Surface shall be tan to light brown when fully applied and dry. Mask all adjacent surfaces and avoid overspray. Fill all small voids and cracks with Ram Tough Primer/Conditioner and RamTough 250 prior to full application. Ram Tough Primer/Conditioner shall be allowed to dry tack-free before applying the RamTough 250. Drying time will vary depending on the temperature, wind, and sunlight. Ram Tough Primer/Conditioner shall present a tan to non-uniform, mottled brown appearance. Do not prime more area than will be covered with RamTough 250 in the same day. Pre-prime all areas which have been contaminated by dust or debris.

**Membrane Flashing:** Install a one-inch cant of RamTough 250 at exposed metal projections to extend from the primed metal out twelve-inches on to the deck. Allow the hot RamTough 250 to slightly cool and tool with a trowel. Install two-piece Ram 327 HDR Flashing Sheet, base portion first, or primed sheet metal sleeve flashing per published and current RamTough details.

At all curbs, projections, walls and other changes in plane, hot rubberized asphalt bitumen and reinforced flashings shall be installed prior to the field of the deck installation. Install base flashings in accordance with applicable RamTough flashing details and installation requirements. Install a flashing of RamTough 250 and Ram 327 HDR elastomeric sheeting wherever there is a vertical surface or change in plane exists. The minimum required flashing height is eight-inches, with a maximum of 30-inches. Prime the area to the specified height and continue onto the deck.



**Membrane  
Flashing:  
(continued)**

Allow the Ram Tough Primer/Conditioner to dry tack-free prior to application of RamTough 250. Use masking paper to avoid staining adjacent surfaces. Take precautions to avoid wind-carried overspray from damaging adjacent surfaces. Bond laps in the flashing sheet a minimum of three-inches in width with 1/8-inch thickness of hot RamTough 250. Apply 125-mils of RamTough 250 a minimum of four-inches wide to the horizontal plane and eight-inches up the vertical plane of the flashing, and immediately lay the neoprene sheet into the hot material on the horizontal surface, embed tight into the cove, following up the vertical surfaces. Sheeting shall be fully adhered a minimum of seven-inches on the vertical and free of any wrinkles or fish-mouths. Using a hot roller or squeegee, apply a minimum 125-mils of RamTough 250 over the entire assembly. The neoprene shall be tightly pressed into the cover area. Neoprene flashing with void space below it is unacceptable and shall be cut out and re-flashed. Install a termination bar with appropriate fasteners eight-inch on center. Seal the top edge of all flashings before the end of the day and provide metal counterflashing to protect the top termination of the installed system.

As soon as the Ram Tough Primer/Conditioner has dried, dress cracks. Where cracks are equal or less than 1/16-inch in width apply a 125-mil thick layer of RamTough 250 over a primed substrate, six-inches on either side of the crack. Where cracks range from 1/16-inch to 1/4-inch in width apply a 125-mil thick layer of RamTough 250 over a primed substrate and embed a minimum six-inch wide Ram 327 HDR neoprene sheeting into hot RamTough 250. The sheet shall extend three-inches to either side of crack and be free of fish-mouths. Lap separate lengths of Ram 327 HDR sheeting a minimum of three-inches and adhere with 90-mil thick surfacing of hot RamTough 250.

At cold joints and construction joints, remove any existing pre-molded joint filler to a minimum depth of 1/2-inch. Prime both sides of the joint and allow to dry tack-free. Apply 125 mil thickness of RamTough 250 to each side of the primed joint, a minimum nine inches in width. Immediately embed one half of a six-inch width of Ram 327 HDR while RamTough 250 material is hot. Embed the other half of the sheet likewise on the other side of the joint. The sheet shall be fully adhered and free of wrinkles and fish-mouths.

Expansion joints shall be raised or in plane expansion joints. Install in compliance with RamTough and project approved details.

**Base Coat:**

RamTough 250 shall be applied starting at the low point of the deck, pour the bitumen into place and spread evenly, to a thickness of not less than 90-mils (approximately 60 lbs. per square), in an application width of approximately 44-inches with a straight blade squeegee. To help assure the proper application rate, a chalk line grid system is suggested to confirm the proper coverage. Assure that proper bitumen application is achieved with a regular quality assurance protocol.

- Reinforcement:** While the bitumen is still hot, install one layer of Polyfelt 125 VP reinforcing fabric into the RamTough 250. Standing off to the side and using a broom or squeegee, press fabric into the hot bitumen using care not to create wrinkles or fish-mouths. all end laps shall be overlapped a minimum of six inches. Ensure there is a solid coat of bitumen between all laps. All laps shall be laid in a shingle fashion, so no laps buck water. Follow-up with successive RamTough 250 and reinforcing layer, working up the slope.
- As an option for a double reinforced system, after the first run of fabric has been installed, return to the same starting point, and install a second run of bitumen and reinforcement, overlapping the first course by 3-inches. All end laps shall be overlapped a minimum of six-inches. Ensure there is a solid coat of bitumen between all laps. **In no place shall fabric touch fabric.**
- Top Coat:** Apply a topcoat of RamTough 250 at a continuous thickness of not less than 125-mils, which equates to approximately 80 lbs. per square. While the surface coat is still hot, apply the specified protection course and press into place to create a continuous bond.
- Protection Course:** RamTough 250 shall receive a protection course of Ram 203 or 306 cap sheet while still hot. Overlap adjoining short edges (dry) a minimum of three inches to ensure complete coverage. Press into place.
- Integrity Test:** An ASTM D5957 Integrity Test shall be carried out by an approved laboratory for 24 – 48 hours prior to the application of any overburden. A written test report shall be generated detailing the test method and the test results.
- Inspection:** Contractor and system manufacturer shall inspect the fully installed system and provide a punch list in writing for correction and shall be completed by the contractor.
- Insulation:** Loose laid over protection course, a minimum 2” thickness, STYROFOAM PLAZAMATE Insulation, minimum 60 psi compressive strength.
- Surfacing:** Structural concrete slab, minimum 2,500 psi shall be designed to comply with applicable Building Code Requirements.
- Maximum Design Pressure:** N/A



## GENERAL LIMITATIONS:

1. Fire classification is not part of this acceptance, refer to a current Approved Roofing Materials Directory for fire ratings of this product.
2. All standard panel sizes are acceptable for mechanical attachment. When applied in approved asphalt and/or adhesives, panel size shall be 4-foot by 4-foot maximum.
3. A coverboard and/or recovery board insulation panel is required on all applications over closed cell foam insulations. Asphalt application of either panel shall be at a minimum rate of 20 lbs./square.
4. Contractor shall submit to the Building Official for review the system specifications and details. Submission of these documents, as well as the proper application and installation of all materials shall be the sole responsibility of the contractor.
5. Flashings shall be installed according to the manufacturers published standard details, specific details, approved by The Barrett Company, LLC, and shall be submitted to the Building Official for review.
6. All work shall be performed by a Contractor licensed to do roofing/ waterproofing and be a Manufacturer Trained 'Qualified Applicator' approved by The Barrett Company, LLC. The Barrett Company, LLC shall supply a list of approved applicators to the authority having jurisdiction.
7. Perimeter and corner areas shall comply with the enhanced uplift pressure requirements of these areas. Fastener densities shall be increased for both insulation and base sheet as calculated in compliance with Roofing Application Standard RAS 117. Calculations prepared, signed and sealed by a Florida registered Professional Engineer, Registered Architect, or Registered Roof Consultant **(When this limitation is specifically referred within this NOA, General Limitation #9 will not be applicable.)**
8. A non-skid surfacing is required for all pedestrian areas, plaza decks or balconies.
9. The maximum designed pressure limitation listed shall be applicable to all roof pressure zones (i.e. field, perimeters, and corners). Neither rational analysis, nor extrapolation shall be permitted for enhanced fastening at enhanced pressure zones (i.e. perimeters, extended corners and corners). **(When this limitation is specifically referred within this NOA, General Limitation #7 will not be applicable.)**
10. All products listed herein shall have a quality assurance audit in accordance with the Florida Building Code and Rule 61G20-3 of the Florida Administrative Code.

**END OF THIS ACCEPTANCE**

