SECTION 07280 (07 28 00)

SYNTHETIC AND RUBBERIZED ROOF UNDERLAYMENTS

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** NOTE TO SPECIFIER ** System Components Corporation; synthetic roof underlayments.

This section is based on the products of System Components Corporation, which is located at:

10 W. Streetsboro Street Suite 207

Hudson, OH 44236 Phone: 330-528-0255 Fax: 330-528-0846

Email: tkruckenberg@systemcomponents.net

Web: systemcomponents.net

[Click Here] for additional information.

SystemComponents offers a variety of superior synthetic roof underlayments to meet your roofing needs. All products in the SystemComponents family exceed industry standards in commercial or residential sloped roof applications. Their unique design and strong construction drastically simplify installation and enhance the performance of all sloped roofing systems.

1.GENERAL

1.1. SECTION INCLUDES

- Synthetic roof underlayments.
- B. Self-adhering, rubberized asphalt roofing underlayment system.

1.2. RELATED SECTIONS

** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.

- A. Section 06100 Rough Carpentry.
- B. Section 07310 Shingles, Roof Tiles, and Roof Coverings: Roof coverings applied over underlayment.
- C. Section 07620 Flashing and Sheet Metal: Gutters and Downspouts.
- D. Section 08630 Unit Skylights: Skylights.

1.3. REFERENCES

** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.

- A. ASTM International (ASTM):
 - 1. ASTM D226 Standard Specification for Asphalt-Saturated Organic Felt Used in Roofing and Waterproofing.
 - 2. ASTM D751 Standard Test Methods for Coated Fabrics.
 - 3. ASTM D882 Standard Test Method for Tensile Properties of Thin Plastic Sheeting.

- 4. ASTM D903 Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.
- 5. ASTM D1777 Standard Test Method for Thickness of Textile Materials.
- 6. ASTM D1970 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing.
- 7. ASTM D3462 Standard Specification for Asphalt Shingles Made from Glass Felt and Surfaced with Mineral Granules.
- 8. ASTM D4533 Standard Test Method for Trapezoid Tearing Strength of Geotextiles.
- 9. ASTM D4869 Standard Specification for Asphalt-Saturated Organic Felt Underlayment Used in Steep Slope Roofing.
- ASTM D5261 Standard Test Method for Measuring Mass per Unit Area of Geotextiles.
- 11. ASTM E96 Standard Test Method for Water Vapor Transmission of Materials.
- 12. ASTM E108 Standard Test Methods for Fire Tests of Roof Coverings.
- B. International Code Council (ICC):
 - 1. ICC AC-08 Acceptance Criteria for Tile Underlayment
 - ICC AC 48 Acceptance Criteria for Roof Underlayment For Use In Severe Weather Climates.
 - 3. ICC-ES AC188 Roof Underlayments.
- C. CSA Group (CSA):
 - 1. CSA A 123.3 Asphalt Saturated Organic Roofing Felt.
- D. Florida Building Code (FBC):

1.4. SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data:
 - 1. Manufacturer's data sheets on each product to be used.
 - 2. Preparation instructions and recommendations.
 - 3. Storage and handling requirements and recommendations.
 - 4. Typical installation methods.
 - 5. Copy of manufacturer's lifetime limited warranty.

** NOTE TO SPECIFIER ** Delete if not applicable to product type.

- C. Verification Samples: Two representative units of each type, size, pattern and color.
 - D. Shop Drawings: Include details of materials, construction and finish. Include relationship with adjacent construction.

1.5. QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum ten years documented experience.
- B. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
- C. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.

** NOTE TO SPECIFIER ** Include mock-up if the project size or quality warrant the expense. The following is one example of how a mock-up on might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

- D. Mock-Up: Construct a mock-up with actual materials in sufficient time for Architect's review and to not delay construction progress. \ Locate mock-up as acceptable to Architect and provide temporary foundations and support.
 - 1. Intent of mock-up is to demonstrate quality of workmanship and visual appearance.
 - 2. If mock-up is not acceptable, rebuild mock-up until satisfactory results are achieved.
 - Retain mock-up during construction as a standard for comparison with completed work.
 - 4. Do not alter or remove mock-up until work is completed or removal is authorized.

1.6. PRE-INSTALLATION CONFERENCE

A. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.

1.7. DELIVERY, STORAGE, AND HANDLING

- A. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
- B. Protect from damage due to weather, excessive temperature, and construction operations. As recommended by manufacturer, store materials as lower temperature between 40 and 100 degrees F (4.4 and 37.8 degrees C).
- C. Packing, Shipping, Handling and Unloading: Deliver materials in manufacturer's original unopened, undamaged containers with identification labels intact.

1.8. PROJECT CONDITIONS

A. Environmental Requirements and Conditions: Weather Conditions: Neither commence nor proceed with the underlayment application when frost is present or inclement weather conditions conflict with manufacturer's published requirements.

1.9. WARRANTY

- A. Manufacturer's Warranty: Manufacturer's standard limited warranty.
 - 1. The formation or presence of mold or fungi in a building is dependent upon a broad range of factors including, but not limited to, the presence of spores and nutrient sources, moisture, temperatures, climatic conditions, relative, heating and ventilating systems and their maintenance and operating capabilities. These factors are beyond the control of System Components Corporation and System Components Corporation shall not be responsible for any claims, repairs, restoration or damages relating to the presence of any irritants, contaminants, vapors, fumes, molds, fungi, bacteria, spores, mycotoxins or the like in any building or in the air, land or water serving the building.

2.PRODUCTS

2.1. MANUFACTURERS

A. Acceptable Manufacturer: System Components Corporation, which is located at: 10 W. Streetsboro Street Suite 207; Hudson, OH 44236; ASD Phone: 330-528-0255; Fax: 330-528-0846; Email: _tkruckenberg@systemcomponents.net _____; Web: systemcomponents.net

** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

** NOTE TO SPECIFIER ** Delete article if not required. If article is required, then delete paragraphs not required.

2.2. SYNTHETIC ROOF UNDERLAYMENTS

** NOTE TO SPECIFIER ** FelTex synthetic roof underlayments is the safest, strongest, and best performing roof underlayment on the market. Woven of heavyweight polymer fabric, FelTex offers superior strength and durability, steep-slope traction, water resistance, a wrinkle free surface and resistance to UV-breakdown. The textured Fiber Claw woven fabric surface offers dynamic traction and is ideal for steep slopes in a variety of weather conditions. FelTex is rated for commercial and residential applications using roofing nails, 3/8 inch (10 mm) head, and is an ideal roof underlayment for asphalt shingle, metal, tile, slate, and a variety of other sloped roofing materials.

- A. Basis of Design: FelTex Synthetic Roofing Underlayment Membrane System as manufactured and supplied by System Components Company Incorporated.
 - 1. Features:
 - a. Skid-resistant polymer coating underneath and proprietary Fiber Claw walking surface offers dynamic steep slope traction.
 - b. Class 4 hail rating (UL 2218). May help reduce insurance costs.
 - Designed for high traffic and high winds with the most strength and durability available.
 - d. Lighter than No. 15 or No. 30 felt and easier to handle during all stages of installation.
 - e. Installs quickly and easily and covers more area than traditional underlayments.
 - f. Offers five times more coverage per roll than Type 30 felt.
 - g. Advertise with Big and Bold Custom Print:
 - 1) To get leads or earn paid advertising revenue during your project.
 - 2) With Broadcast Custom Print your individual logo, phone number, web address and any other advertisements can be featured on the same roll, with individual images more than 2 feet (610 mm) tall and 10 feet (3048 mm) wide.
 - h. Won't Buckle, Warp or Crack: Superior lay-flat properties and water resistance prevent wrapping, wrinkling, and cracking in cold weather.
 - i. Treated to resist excessive degradation from normal UV exposure for up to six months.
 - j. Rated for residential and commercial projects.
 - k. Asphalt Free: 100 percent inorganic and will not rot or mold.
 - I. Sustainable: Environmentally responsible. May contribute to LEED or NGBP ratings.
 - m. Color: Gray.
 - 2. Physical Properties: Test data is based on average results and should not be considered or interpreted as minimum or maximum values.
 - a. Code and Standards Compliance:
 - 1) ICC-ES AC188 (ESR-1293).
 - 2) ASTM D226 Type I and II.
 - 3) ASTM D4869.
 - 4) CSA A 123.3 Type 1 and 2.
 - 5) FBC No. 17873.
 - 6) Texas Department of Insurance.
 - 7) Tensile Strength per ASTM D 882:
 - Machine Direction: 126 lbs (57.15 kg).

- b. Cross Machine; Transverse Direction: 92 lbs (41.73 kg).
- 8) Tear Resistance per ASTM D 4533:
 - a. Machine Direction: 41 lbs (18.60 kg).
 - b. Cross Machine; Transverse Direction: 37 lbs (16.78 kg).
- 9) Rupture Resistance per ASTM D 3462: 87 lbs (36.46 kg).
- 10) Beach Puncture per ICC AC-08: Pass.
- 11) Long Term Sag per ICC AC-08: Pass.
- 12) Liquid Water Transmission per ASTM D 4869-02: Pass.
- 13) Ultra Violet Aging per ICC-ES AC 188: Pass.
- 14) Accelerated Aging per ICC-ES AC 188: Pass.
- b. Roll Dimensions (W x L) 48 x 250 inches (1219 x 6350 mm).
- c. Weight per Roll: 30 lbs (13.6 kg).
- d. Coverage per Roll: 10 sq ft (0.93 sq m).
- e. Rolls per Pallet: 36.
- f. Pallet Weight: 1595 lbs (723.5 kg).

** NOTE TO SPECIFIER ** A much better choice than No. 30 felt. CoverPRO 3000 is the roofing professional's preference when the project demands the performance benefits often found in premium synthetic underlayment at the cost of No. 30 roofing felt. Manufactured from 100 percent synthetic materials, CoverPRO 3000 offers the same dynamic walking surface, simple installation and easy to handle lightweight roll as CoverPRO and the addition of a specially formulated low slip bottom side coating. This layer adds strength and grabs the deck to reduce stress around fasteners and add a measure of safety. CoverPRO 3000's four layer construction is the professional's choice for use on steeper slopes under all types of roofing material; including: asphalt shingles, synthetic shingles, cedar shakes, and metal. Safer and stronger than No. 30 felt with more installation and installed performance benefits than other professional grade products, a 30-year Limited Warranty and extra-large full color Broadcast custom printed advertising makes CoverPRO 3000 the Pro's choice for your next project.

- B. Basis of Design: CoverPRO 3000 Synthetic Roofing Underlayment Membrane System as manufactured and supplied by System Components Company Incorporated.
 - Features:
 - a. Proprietary non-woven walking surface and specially engineered low slip bottom side coating improves roof deck walkability in all conditions.
 - b. Each 10 square roll weighs less than 26 lbs (11.79 kg) and is attached with standard roof nails. Plastic caps not needed.
 - c. Unique four layer construction makes it 20 times stronger than No. 30 roofing felt. It requires significantly fewer fasteners and provides a tough, durable deck cover regardless of weather conditions.
 - d. Color: Gray. Provides a comfortable working surface in all temperatures.
 - e. Advertise big and bold Broadcast Custom Print:
 - 1) To get leads or earn paid advertising revenue during your project.
 - 2) With Broadcast Custom Print your individual logo, phone number, web address and any other advertisements can be featured on rolls, with individual images, up to 2 feet (610) tall and 10 feet (3048) wide.
 - f. Strength: 20 times stronger and 5 times more coverage per roll than No. 30 roofing felt.
 - g. Coverage: 11 percent more coverage per course than traditional No. 30 roofing felt.
 - h. Non-woven walking surface feels like traditional felt underfoot.
 - i. Sure footing with a deck grabbing low slip bottom side coating.
 - j. Less weight per roll means easier handling during installation.
 - k. Sustainability: May contribute to LEED and NGBP ratings.
 - I. Superior lay-flat properties; will not wrinkle or absorb water.
 - m. Remains flexible and easy to install in cold climates.
 - n. Synthetic Construction: 100 percent. Will not rot or mold.

- o. UV Exposure Rating: 90 day.
- p. Fire Rating: Class A.
- 2. Physical Properties: Results reflect typical properties of control/non-conditioned specimens. Values should not be interpreted as limiting specifications and will vary within typical manufacturing tolerances.
 - a. Code and Standards Compliance:
 - 1) ICC-ES AC188 (ESR-1293).
 - 2) ASTM D226 Type I and II.
 - 3) ASTM D4869.
 - 4) CSA A 123.3 Type 1 and 2.
 - 5) FBC No. 8700-R2.
 - 6) Texas Department of Insurance (TDI).
 - 7) Permeability ASTM E96: 0.1 U.S. Perms (.0660 Metric Perms)
 - 8) Water Transmission ASTM D4869: Pass.
 - 9) Tear Strength ASTM D4533:
 - a. Machine Direction: 38 lbs (17.24 kg).
 - b. Cross Machine; Transverse Direction: 37 lbs (16.78 kg).
 - 10) Tensile Strength ASTM D751:
 - a. Machine Direction: 38 lbs (17.24 kg).
 - b. Cross Machine; Transverse Direction: 37 lbs (16.78 kg).
 - 11) Burst Strength ASTM D751: 160 psi (1103 kPa).
 - 12) Elongation ASTM D751: 20 percent.
 - 13) Weight per Square ASTM D5261: 2.46 lbs (1.11 kg).
 - 14) Nominal Thickness ASTM D1777: 60 mils (1.52 mm).
 - b. Temperature Range; Internal: Minus 70 to 240 degrees F (21 to 115 degrees C).
 - c. Roll Dimensions (W x L) 40 x 300 inches (1016 x 7620 mm).
 - d. Weight per Roll: 25.6 lbs (11.61 kg).
 - e. Coverage per Roll: 1000 sq ft (92.9 sq m).
 - f. Rolls per Pallet: 42.
 - g. Pallet Weight: 1375 lbs (623.7 kg).
- ** NOTE TO SPECIFIER ** CoverPRO 2000 is the best choice when your project demands the performance of synthetic underlayment and the cost of traditional roofing felt. Manufactured from 100 percent synthetic materials, CoverPRO 2000 is the engineered, high quality choice that offers the performance, lightweight, simple installation and safety you want in a roofing underlayment. CoverPRO 2000 is designed for use under all types of roofing material; including: asphalt shingles, synthetic shingles, cedar shakes, and metal. Safer, easier and faster installation along with better installed performance, a 20-year Limited Warranty and extra-large full color Broadcast® custom printed advertising makes CoverPRO 2000 the best choice for your next project.
 - C. Basis of Design: CoverPRO 2000 Synthetic Roofing Underlayment Membrane System as manufactured and supplied by System Components Company Incorporated.
 - Features:
 - a. Proprietary non-woven walking surface improves roof deck walkability in all conditions.
 - b. Each 10 square roll weighs approximately 20 lbs (9.1 kg) and is attached with standard roof nails. Plastic caps not needed.
 - c. Unique four layer construction makes it 25 times stronger than No. 15 roofing felt and 12 times stronger than No. 30 roofing felt. It requires significantly fewer fasteners and provides a tough, durable deck cover regardless of weather conditions.
 - d. Color: Gray. Provides a comfortable working surface in all temperatures.
 - e. Advertise big and bold Broadcast Custom Print:
 - 1) To get leads or earn paid advertising revenue during your project.

- 2) With Broadcast Custom Print your individual logo, phone number, web address and any other advertisements can be featured on rolls, with individual images, up to 2 feet (610 mm) tall and 10 feet (3048 mm) wide.
- f. Strength: 25 times stronger than No. 15 roofing felt and 12 times stronger than No. 30 roofing felt.
- g. Coverage per Roll: 11 percent more coverage per course than traditional No. 15 and No. 30 felt.
- h. Non-woven walking surface feels like traditional felt underfoot.
- i. Less weight per roll means easier handling during installation.
- j. Superior lay-flat properties; will not wrinkle or absorb water.
- k. Sustainability: May contribute to LEED and NGBP ratings.
- I. Remains flexible and easy to install in cold climates.
- m. Synthetic Construction: 100 percent. Will not rot or mold.
- n. UV exposure rating: 90 day.
- o. Fire Rating: Class A.
- 2. Physical Properties: Results reflect typical properties of control/non-conditioned specimens. Values should not be interpreted as limiting specifications and will vary within typical manufacturing tolerances.
 - a. Code and Standards Compliance:
 - 1) ICC-ES AC188 (ESR-1293).
 - 2) ASTM D226 Type I and II.
 - 3) ASTM D4869.
 - 4) ASTM E108.
 - 5) CSA A 123.3 Type 1 and 2.
 - 6) FBC No. 17873-R2.
 - 7) Texas Dept. of Insurance (TDI).
 - 8) Permeability ASTM E96: 0.1 U.S. Perms (.0660 Metric Perms).
 - 9) Water Transmission ASTM D4869: Pass.
 - 10) Tear Strength ASTM D4533:
 - a. Machine Direction: 33 lbs (14.97 kg).
 - b. Cross Machine; Transverse Direction: 24 lbs (10.88 kg).
 - 11) Tensile Strength ASTM D751:
 - a. Machine Direction: 95 lbs (43.09 kg).
 - b. Cross Machine; Transverse Direction: 85 lbs (38.55 kg).
 - 12) Burst Strength ASTM D751: 160 psi (1103 kPa).
 - 13) Elongation ASTM D751: 20 percent.
 - 14) Weight per Square ASTM D5261: 1.96 lbs (0.89 kg).
 - 15) Nominal Thickness ASTM D1777: 6.2 mils (0.157 mm).
 - b. Temperature Range; Internal: Minus 70 to 240 degrees F (21 to 115 degrees C).
 - 1) Weight per Roll: 20.2 lbs (9.16 kg).
 - c. Coverage per Roll: 1000 sq ft (92.9 sq m).
 - 1) Roll Dimensions: 40 inches x 300 ft (1016 mm x 91.44 m).
 - a. Rolls per Pallet: 56.
 - 2) Roll Dimensions: 60 inch x 200 ft (1524 mm x 60.96 m).
 - a. Rolls per Pallet: 48.

** NOTE TO SPECIFIER ** Now you have a choice – CoverPRO 1000 is the best choice when your project demands the performance of synthetic underlayment and the cost of traditional roofing felt. Manufactured from 100 percent synthetic materials, CoverPRO 1000 is the engineered, high quality choice that offers the performance, lightweight, simple installation and safety you want in a roofing underlayment. CoverPRO 1000 is designed for use under all types of roofing material; including: asphalt shingles, synthetic shingles, cedar shakes,. Safer, easier and faster installation along with better installed performance, a 10-year Limited Warranty and extra-large full color Broadcast custom printed advertising makes CoverPRO 1000 the best choice for your next project.

- D. Basis of Design: CoverPRO 1000 Synthetic Roofing Underlayment Membrane System as manufactured and supplied by System Components Company Incorporated.
 - 1. Features:
 - a. Proprietary non-woven walking surface improves roof deck walkability in all conditions.
 - b. Each 10 square roll weighs approximately 17 lbs (7.71 kg) and is attached with standard roof nails. Plastic caps not needed.
 - c. Unique four layer construction makes it 25 times stronger than No. 15 roofing felt and 12 times stronger than No. 30 roofing felt. It requires significantly fewer fasteners and provides a tough, durable deck cover regardless of weather conditions.
 - d. Color: Gray. Provides a comfortable working surface in all temperatures.
 - e. Advertise big and bold Broadcast Custom Print:
 - 1) To get leads or earn paid advertising revenue during your project.
 - 2) With Broadcast Custom Print your individual logo, phone number, web address and any other advertisements can be featured on rolls, with individual images, up to 3 feet (914 mm) tall and 10 feet (3048 mm) wide.
 - f. Strength: 25 times stronger than No. 15 roofing felt and 12 times stronger than No. 30 roofing felt
 - g. Coverage per Roll: 11 percent more coverage per course than traditional No. 15 and No. 30 felt.
 - h. Non-woven walking surface feels like traditional felt underfoot
 - i. Less weight per roll means easier handling during installation.
 - j. Superior lay-flat properties; will not wrinkle or absorb water.
 - k. Sustainability: May contribute to LEED and NGBP ratings.
 - I. Remains flexible and easy to install in cold climates.
 - m. Synthetic Construction: 100 percent. Will not rot or mold.
 - n. UV exposure rating: 30 day.
 - o. Fire Rating: Class A.
 - 2. Physical Properties: Results reflect typical properties of control/non-conditioned specimens. Values should not be interpreted as limiting specifications and will vary within typical manufacturing tolerances.
 - a. Code and Standards Compliance:
 - 1) ICC-ES AC188 (ESR-1293).
 - 2) ASTM D226 Type I and II.
 - 3) ASTM D4869.
 - 4) ASTM E108.
 - 5) CSA A 123.3 Type 1 and 2.
 - 6) FBC No. 17873.
 - 7) Permeability ASTM E96: 0.1 U.S. Perms (.0660 Metric Perms).
 - 8) Water Transmission ASTM D4869: Pass.
 - 9) Tear Strength ASTM D4533:
 - a. Machine Direction: 24 lbs (10.88 kg).
 - b. Cross Machine; Transverse Direction: 24 lbs (10.88 kg).
 - 10) Tensile Strength ASTM D751:
 - a. Machine Direction: 80 lbs (36.29 kg).
 - b. Cross Machine; Transverse Direction: 80 lbs (36.29 kg).
 - 11) Burst Strength: 130 psi (896.3 kPa).
 - 12) Elongation: 18 percent.
 - 13) Weight per Square: 1.74 lbs (0.79 kg).
 - 14) Nominal Thickness: 5.9 mils (0.150 mm).
 - b. Temperature Range; Internal: Minus 70 to 212 degrees F (21 to 100 degrees C).
 - 1) Weight per Roll: 17.4 lbs (7.89 kg).

- c. Coverage per Roll: 1000 sq ft (92.9 sq m).
- d. Coverage per Roll: 1000 sq ft (92.9 sq m).
 - 1) Roll Dimensions: 40 inches x 300 ft (1016 mm x 91.44 m).
 - a. Rolls per Pallet: 56.
 - 2) Roll Dimensions: 60 inch x 200 ft (1524 mm x 60.96 m).
 - Rolls per Pallet: 48.

** NOTE TO SPECIFIER ** Delete article if not required.

2.3. SELF-ADHERING, RUBBERIZED ASPHALT ROOFING UNDERLAYMENT SYSTEMS

** NOTE TO SPECIFIER ** FelTex SA300 roofing underlayment is a high-performance, next-generation underlayment with an adhesive backing. FelTex SA300 is unrivaled in its ease of application and known for its exceptional UV resistance (six months). FelTex SA300 meets or exceeds code and industry nail seal-ability tests, and offers the most walkable surface in the industry with a textured Fiber Claw woven fabric surface. FelTex SA300 is rated for commercial and residential applications, and is an ideal self-adhering underlayment for the most demanding severe weather applications.

A. Basis of Design: FelTex SA300 Self-Adhering Underlayment Roofing Underlayment Membrane System as manufactured and supplied by System Components Company Incorporated.

B. Features:

- Meets code requirements for initial tack at 0 degrees F (minus 17 8 degrees C) and has a high adhesive melt point at 280 degrees F (137.8 degrees C), making it the most versatile choice for a wide range of products.
- 2. Will not delaminate and is resistant to tearing and stretching.
- 3. Proprietary Fiber Claw walking surface offers dynamic steep slope traction.
- C. Physical Properties: Test data is based on average results and are not limiting specifications. Normal manufacturing variation may produce results 10 percent above or below typical data and should not be considered or interpreted as minimum or maximum values.
 - 1. Code and Standards Compliance:
 - a. ICC-ES AC 48. Pass.
 - b. Thickness Membrane per ASTM D 1970: 22 mils (0.559 mm).
 - c. Tensile Strength per ASTM D 1970:
 - 1) Machine Direction: 130 lbs per inch (22.77 kN per m).
 - 2) Cross Machine; Transverse Direction: 94 lbs per inch (16.46 kN per m).
 - d. Elongation Membrane per ASTM D 1970: 400 percent.
 - e. Low Temperature Flexibility per ASTM D 1970: Unaffected at minus 200 degrees F (minus 129.9 degrees C).
 - f. Adhesion to Plywood per ASTM D1970: 6.8 lbs per inch (1.191 kN per m) width
 - g. Permeance per ASTM E 96: 0.067 U.S. Perms (0.441 Metric Perms).
 - h. Basis Weight per ASTM D 5261: 100 lbs per 1000 sq ft (488 grams per sq m).
 - i. Thickness per ASTM D 1970: 22 mils (0.559 mm).
 - j. Adhesive Melt Point per ASTM E28: 280 degrees F (137.8 degrees C).
 - k. Flexibility Temperature per ASTM D1970: minus 20 degrees F (minus 28.9).
 - I. Nail Sealability per ASTM D1970: Pass.
 - 2. Material Weight Installed: 0.094 lbs per sq ft (0.459 kg per sq m).
 - 3. Product Width: 48 inches (1219 mm).
 - 4. Roll Length: 53.3 ft (16.25 m).
 - 5. Maximum UV Exposure: 480 days. See manufacturer published installation instructions for details and limitations.
 - 6. Color: Gray.

** NOTE TO SPECIFIER ** CoverPro SA roofing underlayment is a high-performance, next-generation underlayment with an adhesive backing. CoverPro SA meets or exceeds code and industry nail seal-ability tests, and offers the most walkable surface in the industry with a textured woven fabric surface. CoverPro SA is rated for commercial and residential applications, and is an ideal self-adhering underlayment for the most demanding severe weather applications.

D. Basis of Design: CoverPro SA Self-Adhering Underlayment Roofing Underlayment Membrane System as manufactured and supplied by System Components Company Incorporated.

E. Features:

- 1. Will not delaminate and is resistant to tearing and stretching.
- 2. Proprietary Steep Slope walking surface offers dynamic steep slope traction.
- 3. Warranty: 10 year limited warranty.
- F. Physical Properties: Test data is based on average results and are not limiting specifications. Normal manufacturing variation may produce results 10 percent above or below typical data and should not be considered or interpreted as minimum or maximum values.
 - 1. Code and Standards Compliance:
 - a. ICC-ES AC 48. Pass.
 - b. Thickness Membrane per ASTM D 5147: 44 mils (1.12 mm).
 - c. Tensile Strenath per ASTM D 1970:
 - 1) Machine Direction: 58 lbs per inch (10.16 kN per m).
 - 2) Cross Machine; Transverse Direction: 54 lbs per inch (9.46 kN per m).
 - d. Cold Temperature Flexibility per ASTM D 1970: Pass.
 - e. Moisture vapor Permeability per ASTM E 96 Method A: 0.067 U.S. Perms (0.441 Metric Perms).
 - f. Nail Sealability per ASTM D1970: Pass.
 - 2. Material Weight Installed: 0.27 lbs per sq ft (1.3 kg per sq m).
 - 3. Product Width: 36 inches (914 mm).
 - 4. Roll Length: 67 ft (20.42 m).
 - 5. Maximum UV Exposure: 90 days. See manufacturer published installation instructions for details and limitations.

3.EXECUTION

3.1. EXAMINATION

- A. Do not begin installation until substrates have been properly constructed and prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.

3.2. PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
 - 1. Surfaces receiving underlayment to be dry, clean, frost free, dust free, and free of dirt or other foreign matter.
 - 2. Substrates to have no significant delamination, warpage, bowing or separation from the rafters, trusses or support structure.
 - 3. Re-roofing: Remove old materials from roof deck for area to be covered with roof underlayment. Replace water-damaged sheathing and sweep roof deck thoroughly.

C. Adhesion Test: Determine substrate condition and acceptance by applying a test patch of membrane material to surface and check adhesion according to manufacturer's test procedures.

3.3. INSTALLATION

- A. Install in accordance with manufacturer's instructions, approved submittals and in proper relationship with adjacent construction.
- B. Fastening methods and materials should conform to best building practices and local jobsite conditions. Verify final application to be compliant with the requirements of applicable building codes.
- C. Verify compatibility according to geographical region, structure type and roof specification with applicable building codes and/or by review of a building professional.
- D. Follow manufacturer's guidelines for number of days of product exposure to sunlight.

3.4. REPAIRS

** NOTE TO SPECIFIER ** Paragraph applies to synthetic roof underlayments. Delete if not required.

A. Repair damage to the underlayment with caulk or sealant material maintaining a water-tight seal around the damaged area and proper overlaps to run with the flow of water in a shingling fashion. Ensure any incorrectly applied fasteners are caulked and/or sealed to prevent possible moisture ingress.

** NOTE TO SPECIFIER ** Paragraph applies to self-adhering, rubberized asphalt roofing underlayment. Delete if not required.

B. Apply replacement product in accordance with standard installation procedures. Ensure overlaps run with the flow of water in a shingling fashion and are a minimum of 6 inches (152 mm) in each direction.

3.5. FIELD QUALITY CONTROL

A. Field Inspection: Coordinate field inspection in accordance with appropriate sections in Division 01.

** NOTE TO SPECIFIER ** Include if manufacturer provides field quality control with onsite personnel for instruction or supervision of product installation, application, erection or construction. Delete if not required.

B. Manufacturer's Services: Coordinate manufacturer's services in accordance with appropriate sections in Division 01.

3.6. CLEANING AND PROTECTION

- A. Clean and protect products in accordance with the manufacturer's recommendations.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

End of Section