

## GUIDE SPECIFICATION

# LeakBarrier® PS200<sup>HT</sup> Self-Adhering Metal Underlayment

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### PART 1: GENERAL

#### 1.01 Related Work

- A. Metal Roof Coverings: Roof coverings applied over underlayment:

#### 1.02 References

- A. ASTM D 903 - Standard Test Method for Peel or Stripping Strength of Adhesive Bonds.
- B. ASTM D 1970 - Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
- C. ASTM D 2523 - Standard Practice for Testing Load-Strain Properties of Roofing Membranes.
- D. ASTM D 5147 - Standard Test Method for Sampling and Testing Modified Bitumen Roofing Membranes.
- E. ICC AC 48 - Acceptance Criteria for Roof Underlayment for Use in Severe Climate Areas.

#### 1.03 Shop Drawings

- A. Submit copies of manufacturer's standard details describing installation methods and flashing conditions applicable to the project.

#### 1.04 Storage and Handling

- A. Rolls must be stored indoors, in a dry location.
- B. Rolls must be stored on ends only.
- C. Rolls must be stored such that the selvage (side lap) is up.
- D. Rolls must not be stored in a leaning position.
- E. Rolls must be protected from the elements. Do not expose rolls to direct sunlight.
- F. Rolls must be stored at room temperature. Prolonged exposures to elevated temperatures may reduce the adhesive characteristic of the membrane.

#### 1.05 Environmental Considerations

- A. Material shall be applied only when material interface (air, deck, membrane) temperatures are 40<sup>0</sup> F and rising.
- B. Material shall not be installed when any form of moisture such as water, dew, rain, etc. is present on the substrate.

#### 1.06 Project Conditions

- A. Deck specifications shall be in compliance with applicable building code.
- B. Care should be taken during the loading procedure to keep foot traffic to a minimum and to avoid dropping of objects directly on the underlayment.
- C. Material shall not be applied over an existing roof membrane.
- D. Roof shall have positive drainage.

#### 1.07 Submittals

- A. Submit the following:
  - a. Product Data Sheet - For each product to be used, two copies of the product data sheet.

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- b. Sample Verification - For each finish product specified, two samples, minimum size twelve inch (300 mm) square representing actual product.
- c. Installer Qualifications - Written documentation that the product installer has a minimum of five (5) years demonstrated experience in installing products of the same type and scope as specified in this Section.

### 1.08 Quality Assurance

- A. Manufacturer Qualifications - All products specified in this section will be provided by a single manufacturer with a minimum of ten (10) years experience.
- B. Installer Qualifications – The roofing installer shall be recognized by the manufacturer for the execution of the specified work.
- C. All work shall be done in accordance with the manufacturer's published installation guidelines.
- D. A copy of all applicable manufacturer product documentation shall be maintained at the jobsite.
- E. Representative(s) of the roofing underlayment manufacturer shall be allowed access to the jobsite at all times during execution of the work.

### 1.09 Alternatives

- A. Submit requests for alternatives to this specification a minimum of ten (10) working days prior to tender closing for evaluation.
- B. Substitute materials not approved in writing prior to tender closing shall not be permitted for use on this project.

### 1.10 Warranty

- A. At completion of the project, underlayment manufacturer shall provide to the owner or owner's representative an executed copy of the manufacturer's Limited Warranty against manufacturing Defect.

## PART 2: PRODUCTS

### 2.01 Manufacturer

- A. Acceptable Manufacturer shall be Tarco, located at One Information Way, Suite 225, Little Rock, AR 72202. Phone (800) 365-4506; Fax: (501) 945-7718; Website address: [www.tarcoroofing.com](http://www.tarcoroofing.com)

### 2.02 Products

- A. Underlayment - Acceptable product shall be an SBS self-adhering metal underlayment consisting of glass fiber reinforcement and a non-abrasive polyester fabric surfacing, having a minimum thickness of 50 mils, designed for use in metal roofing applications. The material shall have a temperature rating equal to or greater than 260° F. Marketed and sold under the trade name, LeakBarrier® PS200<sup>HT</sup>.
- B. Finished Roofing – Metal Roof Panels, manufactured by others.

## PART 3: EXECUTION

### 3.01 Examination

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

### 3.02 Surface Preparation

- A. Clean surfaces thoroughly prior to installation.

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- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
- C. Material shall be applied to a smooth, clean and dry surface, with the deck free from irregularities.
- D. For best results, surface may be primed with an ASTM D41 primer before installation of PS200<sup>HT</sup>. When primer is used, ensure the primer is fully dry prior to application of PS200<sup>HT</sup>.

### 3.03 Precautions

- A. Follow manufacturer's current installation guidelines, procedures found in the current version of the National Roofing Contractors Association's (NRCA) "Steep Slope Roofing and Waterproofing Manual", and requirements of all code bodies having jurisdiction.
- B. During installation, comply with Occupational Safety and Health Administration (OSHA) safety standards; use common sense measures and follow safety precautions to prevent accidents.
- C. Material shall be installed in strict compliance with applicable Building Codes.
- D. In the event of a conflict in installation requirements, the more stringent method of installation shall be followed.

### 3.04 Installation

- A. Roof Deck:
  - a. Cut the roll to suitable, manageable lengths before installation.
  - b. Place a full width piece of the pre-cut underlayment on the substrate, with the side lap on the up slope side.
  - c. Align sheet so that it is parallel to the eave (low) edge of the roof, and extend over the eave and rake approximately 3/8".
  - d. Fold back the sheet and remove the exposed release film, taking care not to displace the sheet.
  - e. Working from the center out, roll the sheet onto the substrate, taking care to avoid wrinkles and ridges.
  - f. Sheet must be set straight. Repeat this process for the remaining half of the sheet.
  - g. Align the next roll over the preceding sheet so as to form a 3.5" side lap or as per applicable Building Code. Then fold back the sheet, exposing the side lap of the first sheet.
  - h. Remove any release film (if present) covering the side lap, prior to application.
  - i. Then install the just placed membrane, per instructions above.
  - j. Apply full roll width, a 1/8" thick uniform layer of SBS trowel grade modified flashing cement/adhesive to the surface of the first course in the 6" end lap area before adhering the next course.
  - k. Walk in the field and seam areas to press the sheet in place, as it is applied.
  - l. Apply subsequent sheets in the same manner, with 3.5" side laps and 6" end laps over the preceding sheets.
  - m. Install capped or tin tagged nails 6" o.c. in the center of the seam area or as per applicable Building Code.
  - n. Stagger the end laps a minimum of 36" (3') from the preceding course.
  - o. Apply 1/8" thick uniform layer of SBS trowel grade modified flashing cement/adhesive throughout the contact area where the self-adhesive compound comes in direct contact with the fabric surface.
  - p. Apply an ASTM D41 asphalt primer, a water-based acrylic primer, or a water-based polymer modified primer to the eave and rake metal drip edges extending 2" to 3" onto the deck surface where the roll will intersect.
  - q. Roll or broom the entire sheet surface so as to have 100% contact with the substrate, giving special attention to the overlap areas. Roller weight shall be 70 lb. minimum for low slope ( $\leq 2:12$  pitch) and 28 lb. minimum for steep slope ( $> 2:12$  pitch).
- B. Eaves, Valley, Flashings:
  - a. Material shall be applied to protrusions, slope changes, valleys, curbs, and other roof top penetrations before any other sections of the roof.

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- b. When applying material in the valley, start at the low point and work to the high point, rolling the membrane from the center outward in each direction.
- c. For ridge applications, center material and roll from the center outward in both directions.
- d. Place material over any metal drip edge in accordance with standard roofing practices.
- e. Carefully trim the excess material off the eaves and rakes.
- f. Prime all metal collars, flashing, valley liners, and drip edge with an ASTM D41 asphalt primer, a water-based acrylic primer, or a water-based polymer modified primer.
- g. All protrusions require an application of 6 inches of fabric and SBS trowel grade modified flashing cement/adhesive with a second layer of material being applied over the underlayment. The flashing tape shall be pressed in place and formed around the protrusion to ensure a tight fit. A second layer of material shall be applied over the flashing detail.

### 3.05 Protection

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products as the job is in progress.

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