

SECTION 7307 ASPHALT SHINGLE ROOF UNDERLAYMENT

Part 1 – General

1.01 Summary

A. Section Includes:

1. Mechanically fastened roof underlayment system.
2. Provide and install underlayment in compliance with manufacturer's specified installation requirements.

B. Related Sections

1. Section 6100: Rough Carpentry; Roof Sheathing and nailers
2. Section 7620: Sheet Metal Flashings and Trim
3. Section 7311: Asphalt Shingles
4. Section: 7610: Architectural Metal Roofing

C. References

1. ICC/ES ESR 1708 - AC188 Roof Underlayment Testing
2. Miami/Dade NOA No.16-0517.14
3. Florida Building Code (FBC) FL8097-R5 Code Version 2017
4. 2006 International Building Code (IBC)
5. 2006 International Residential Code (IRC)
6. Texas Department of Insurance
7. National Roofing Contractors Association
8. Western States Roofing Contractors Association

1.02 Performance Requirements

- A. Provide and install a roof underlayment and roof flashing system that does not permit the passage of water and provides 6-month UV exposure.
- B. Provide and install a polypropylene based synthetic roof underlayment in a 10 SQ roll that weighs 40lbs
- C. Provide and install a roof underlayment that provides 6-month UV exposure per a Miami-Dade High Velocity Hurricane Zone NOA.
- D. Provide and install a synthetic roof underlayment that has passed the testing requirements set forth in ICC-ES AC188.
- E. Provide and install a roof underlayment that has passed the testing requirements set forth per FBC Code Version 2017

SECTION 7307 ASPHALT SHINGLE ROOF UNDERLAYMENT

- F. Provide and install a roof underlayment that has service temperatures between -50 degrees F and 280 degrees F (-45.55 – 137.77 degrees C).
- G. Provide and install a roof underlayment that is slip-resistant to work over even in wet conditions.
- H. Provide and install a roof underlayment that that has printed lay lines for each course of asphalt shingles.

1.03 Submittals – must comply with Division 1

- A. Product Data: Provide product data sheets for each type of product indicated in this section, including certified independent third party, product test results.
- B. Shop Drawings: Provide manufacturers standard installation details, installation instructions and approved shop drawings for the roof system specified.
- C. Provide samples of roof underlayment and associated fasteners for verification of quality.
- D. Sample Warranty

1.04 Quality Assurance

- A. Manufacturer Qualifications: Manufacturer to have ICC/ES, FBC and Miami-Dade listed reports. and provide data from independent testing per Slip Resistance; Test Method National Standard of Canada CAN GSB- 75.1-M88 or equivalent ASTM test per an approved ICC/ES independent testing company.

Average Coefficient of Friction

Rubber – dry: 0.63
Rubber – wet: 0.51
Leather – dry: 0.48
Leather – wet: 0.50

- B. The formation or presence of mold or fungi in a building is dependent upon a number of factors including, but not limited to, the presence of spores and nutrient sources, moisture, temperatures, climatic conditions, relative humidity, and heating/ventilating systems and their maintenance and operating capabilities. These factors are beyond the control of Kirsch Building Products LLC (Kirsch) and Kirsch shall not be responsible for any claims, repairs, restoration, or damages relating to the presence of any irritants, contaminants, vapors, fumes, molds,

SECTION 7307 ASPHALT SHINGLE ROOF UNDERLAYMENT

fungi, bacteria, spores, mycotoxins, or the like in any building or in the air, land, or water serving the building.

1.05 Delivery, Storage and Handling

- A. Packing, Shipping, Handling and Unloading: Deliver materials with identification labels intact. Schedule deliveries to avoid construction delays but minimize jobsite storage.
- B. Storage and protection: Store materials protected from exposure to harmful weather conditions and direct sunlight. As recommended by manufacturer, store materials at a temperature between 40 degrees F and 100 degrees (4.44 – 38 degrees C). If exposed to lower temperatures, restore materials to 40 degree F (4.44 C) minimum temperature before application.

1.06 Warranty

- A. Upon original pre-installation of final roof system, specified underlayment will not materially deteriorate from exposure to sunlight for 6 months.
- B. Upon installation of final roof system, specified underlayment will match the warranty of the primary asphalt shingle roofing covering under which the underlayment is installed. Or provide a 30 year limited warranty per Kirsch Building Products Limited warranty under metal roof systems.

Part 2 – Products

2.01 Materials

- A. Acceptable Product: Sharkskin Comp® as manufactured by: Kirsch Building Products LLC, 1464 Madera Road, Suite 387, Simi Valley, CA 93065
Tel: 877-742-7507 Fax: 805-526-1116
www.sharkskinroof.com
- B. Substitutions:
 - a. Substitutions must fully comply with specified requirements
 - b. Refer to section 01630 - Product options and substitutions for substitution request procedures.
- C. Physical Properties of Roof Underlayment membrane

SECTION 7307 ASPHALT SHINGLE ROOF UNDERLAYMENT

- i. High tensile strength polypropylene woven core fabric, coated with UV resistant polypropylene containing anti-oxidant additive, and slip-resistant polypropylene non-woven fiber surface.

2.02 Materials

- A. Polypropylene based polymer blend

Part 3 Execution

3.01 Examination

- A. Verify that a roof slope of 3-1/2:12 or greater exists for proper water shedding.
- B. Determine, with the presence of the installer, that conditions are satisfactory. (i.e. remove sharp objects and debris on roof deck, etc.)
- C. Conflicts resulting from inspection should be resolved prior to underlayment installation.

3.02 Installation

Underlayment shall be installed per printed instruction from the manufacturer or per local codes. Overlaps run with the flow of water in a shingle-like manner slip-resistant printed side up. Fastener spacing may vary based on local building code, weather conditions, roof pitch and safety conditions.

- A. At first underlayment course nail upper flange of underlayment per manufacturer's installation instructions or per local codes, roof pitch, weather conditions and exposure time.
- B. Nail lower horizontal lap of underlayment approx..2" inside of lap at 6" to 12" O.C. as needed or per local code.
- C. Underlayment should turn down rake edge a minimum of 1" and be nailed every 6" O.C.
- D. Nail 12" to 24" O.C. in field or as needed based upon local code, weather and safety conditions.

SECTION 7307 ASPHALT SHINGLE ROOF UNDERLAYMENT

- E. At second and subsequent underlayment courses overlap underlayment 3" along all horizontal laps with fasteners installed per installation instructions, local codes, roof pitch, weather conditions and exposure time.

- F. Overlap underlayment by a minimum of 6-12" at all vertical laps with fasteners at 6-12" O.C. or per local code, and/or per weather conditions and length of exposure time.

3.03 Repair and Protection

- A. Repair or replace damaged installed products. Remove construction debris from project site and legally dispose of debris.
- B. Protection: Protect installed product's finished surfaces from damaged during construction.