

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

C. References

1. ICC/ES ACC 188 Roof Underlayments
2. Florida Building Code (FBC)
3. 2003 International Building Code (IBC)
4. 2003 International Residential Code (IRC)
5. BOCA National Building Code 1999 (BNBC)
6. 1999 Standard Building Code (SBC)
7. 1997 Uniform Building Code (UBC)
8. Texas Department of Insurance
9. National Roofing Contractors Association
10. Western States Roofing Contractors Association

1.02 Performance Requirements

- A. Provide and install roof underlayment and roof flashing system that does not permit the passage of water and will withstand 6 month UV resistance to sun light.
- B. Install roof underlayment that has passed the requirements set forth in ICC/ES Report 1708.
- C. Provide roof underlayment that has service temperatures between -50 degrees F and 230 degrees F.
- D. Provide a roof underlayment that is slip-resistant to work over even in wet conditions.
- E. Provide a roof underlayment that is resistant to uplift from high winds.

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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 product test results.
- B. Shop Drawings: Provide manufacturers standard installation details, certified product test results as applicable to materials, 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 and FBC 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, 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.

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- 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 (4.4 – 37.8 degrees C). If exposed to lower temperatures, restore materials to 40 degree F (4.4 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 not allow water to penetrate the roofing substrate due to decomposition beneath the primary roof covering of 20 years.

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: (805) 750-0084 Fax: 805-526-1116
www.sharkskin.us
- B. Substitutions:
 - a. Substitutions must fully comply with specified requirements
 - b. Refer to section 01630 - Product options and substitutions for substitution request procedures.
- B. Physical Properties of Roof Underlayment membrane
 - 1. High tensile strength polypropylene woven core fabric, coated with UV resistant polypropylene containing anti-oxidant additive, and slip-resistant fiber surface.

2.02 Materials

- C. 100% Polypropylene based

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Part 3 Execution

3.01 Examination

- A. Verify that a roof slope of 4:12 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. Overlaps run with the flow of water in a shingle-like manner slip-resistant printed side up. The use of 1" round plastic cap nails is required. Fastener spacing may vary based on local building code.

- A. At first underlayment course nail upper flange of underlayment using 1" plastic cap nails with galvanized nail shanks. Start 2" down from top edge of underlayment and nail 4"-6" O.C. (depending on roof pitch, weather conditions and exposure time).
- B. Nail lower bottom flange/edge of underlayment 2" inside of flange/edge at 6" to 12" O.C.
- C. Underlayment must 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 weather and safety conditions.
- E. At second and subsequent underlayment courses overlap underlayment 4" along all horizontal laps with fasteners installed 2" down from top edge of underlayment and nailed 4"-6" O.C. and nail lower bottom flange/edge of underlayment 2" inside of flange/edge at 6" to 12" O.C.
- F. Overlap underlayment by a minimum of 12" at all vertical laps with fasteners at 6" O.C.

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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.