SECTION 7307 CONCRETE/ CLAY TILE, METAL, & SLATE 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 7320: Concrete/Clay Roof Tile
4. Section: 7610: Architectural Metal Roofing
5. Section: 7317: Real and Synthetic Slate

C. References
1. ICC/ES ESR 1708 - ACC188, Roof Underlayments, and AC 48 Roof Underlayment for Use in Severe Climate Areas
2. ICC/ES AC 152 Adhesive Attachment of Concrete or Clay Roofing Tiles per ASTM 1623
3. ICC/ES AC08 Concrete Tile Roof Underalyment on Spaced Sheathing
4. Miami/Dade NOA No.16-0517.14
5. Florida Building Code (FBC) FL8097-R-5 Code Version 2017
6. 2006 International Building Code (IBC)
7. 2006 International Residential Code (IRC)
8. Texas Department of Insurance
9. National Roofing Contractors Association
10. 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 will withstand 12-month UV resistance to sun light.

B. Install roof underlayment that has passed the testing requirements set forth in both ICC-ES AC188 and AC48 per third party independent testing.

C. Provide a roof underlayment that has service temperatures between -50 degrees F and 280 degrees F (-45.55 – 137.77 degrees C).

D. Provide and install a roof underlayment that has passed the testing requirements per Miami-Dade TAS 104as for High Velocity Hurricane Zone with 6-month UV exposure resistance per ASTM D4798 Cycle A-1 for 1000 hrs., per independent testing.

E. Provide and install a roof underlayment that has passed the testing requirements set forth per FBC Code Version 2017 per independent testing.

F. Provide a roof underlayment that has passed testing requirements per ICC/ES AC 152 Adhesive Attachment of Concrete or Clay Roofing Tiles per ASTM 1623 per independent testing from a Miami-Dade accredited lab.

G. Provide and install a roof underlayment that contains no VOC's.

H. Provide and install a roof underlayment that is slip-resistant to work over even in wet conditions.

I. Provide and install roof underlayment that can be installed over spaced wood sheathing, metal fluted deck and counter batten systems.

J. Provide a roof underlayment that carries a 50-year limited warranty.

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 current 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, 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 (4.4 – 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 12 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. And provide a 50 year limited warranty per Kirsch Building Products – Sharkskin Ultra® Limited Warranty.

SECTION 7307 CONCRETE/ CLAY TILE, METAL, & SLATE ROOF UNDERLAYMENT

Part 2 – Products

2.01 Materials

A. Acceptable Product: Sharkskin Ultra™ 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:
High tensile strength polypropylene woven core fabric, coated on both sides with UV resistant polypropylene coating containing antioxidant additive, with slip-resistant polypropylene non-woven fiber surface embedded in top coating layer.

2.02 Materials

C. Polypropylene based polymer blend

Part 3 Execution

3.01 Examination

A. Verify that a roof slope of 3:12 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

Roof underlayment shall be installed per printed installation instructions from the manufacturer on every roll or per local building code. Overlaps run with the flow of water in a shingle-like manner slip-resistant printed side up. Install using 3/8” standard galvanized, copper and or stainless-steel roofing nails, 1” round plastic cap nails, or as per local code. Fastener spacing may vary based on local building code.

A. Nail upper flange of underlayment using corrosion resistant 3/8" roofing nails, plastic caps or per local code, start 2" down from top edge of underlayment and run 12" to 16" O.C. (depending on roof pitch, weather conditions and exposure time).

B. Nail lower flange/bottom edge of underlayment 2" from the fascia board at 12" to 24" O.C. (depending on roof pitch, weather conditions and exposure time).

C. Underlayment must turn down rake edge a minimum of 1" and be nailed every 12" to 24" O.C. (depending on weather conditions and exposure time).

D. Nail 24" O.C. in field or as needed based upon weather and safety conditions.

E. Overlap underlayment from 2"-4" at all horizontal laps with fastener spacing of 12" to 24" O.C.

F. Overlap underlayment by a minimum of 6"-12" at all vertical laps with fasteners at 6"-12" O.C, depending on pitch

3.03 Cleaning and Protection

A. Cleaning: Remove temporary coverings and protection of adjacent work areas. Repair or replace damaged installed products. Clean installed products in accordance with manufacturer's instructions prior to owner's acceptance. Remove construction debris from project site and legally dispose of debris.

B. Protection: Protect installed product's finished surfaces from damaged during construction.