



SECTION 07312 – HDPE THATCH SHINGLE ROOFING SYSTEM

PART 1 – GENERAL

1.01 SUMMARY

- A. This Section Includes the following:
 - a. Endureed® Viva Series synthetic thatch shingles.
 - b. Self-adhering sheet underlayment.
- B. Related Sections include the following:
 - a. Section 06100- ROUGH CARPENTRY for roof deck wood structural panels and additional framing.
 - b. Section 07600 – SHEET METAL FLASHING for metal counter flashings not part of this section.

1.02 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Verification: For the following products, of sizes indicated, to verify color selected.
 - a. Endureed® Viva Series synthetic Thatch Shingle: 12" shingle
 - b. Optional Self-Adhering Underlayment: 12 inches square. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency or by manufacturer and witnessed by a qualified testing agency, for Endureed® Viva Series thatch shingles.
- C. Maintenance Data: For Endureed® Viva Series synthetic thatch shingles to include in maintenance manuals.
- D. Warranties: Special warranties specified in this Section.

1.03 PERFORMANCE REQUIREMENTS

- A. General: Provide installed Endureed® Viva Series synthetic thatch shingles, self adhering membrane and base flashings if required, that remain watertight; do not permit the passage of water; and resist specified uplift pressures, thermally induced movement, and exposure to weather without failure.
- B. Fire-Test-Response Characteristics: Provide Endureed® Viva Series synthetic thatch shingle and related roofing materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method below by UL or



another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.

- a. Exterior Fire-Test Exposure: Class A, ASTM E 108 or UL 790, for application and roof slopes indicated.
- C. Wind Uplift Design: Provide roofing system that complies with the following:
- a. Roofing System Manufacturer's written design instructions.
 - b. 2018 IBC 1603.1.4 Wind Design Data
 - i. Basic design wind speed: 110mph
 - ii. Risk Category: II or III (project dependant)
 - iii. Design wind pressure: 97.5 psf
 - c. UL 1897: Design pressure 97.5 psf

1.04 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Endureed® Viva Series synthetic shingles as manufactured by Global Innovation LLC.
- B. Testing Agency Qualifications: An independent testing agency with the experience and capability to conduct the testing indicated, as documented according to ASTM E-548.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Store roofing materials in a dry, well-ventilated, weather tight location according to Endureed® Viva Series synthetic thatch shingle manufacturer's written instructions. Thatch shingle boxes must remain properly stacked. Boxes not to exceed shipping configuration. Store underlayment rolls on end on pallets or other raised surfaces. Do not double-stack rolls.
 - a. Handle, store, and place roofing materials in a manner to avoid significant or permanent damage to roof deck or structural supporting members.
- B. Protect unused underlayment from weather, sunlight, and moisture when left overnight or when roofing work is not in progress.

1.06 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace Endureed® Viva Series synthetic thatch shingles that fail in materials or workmanship in accordance with current warranty terms. Material failures include manufacturing defects, rot/decay, de-lamination, or UV degradation.



PART 2 – PRODUCTS

2.01 BASIS-OF-DESIGN PRODUCT

- A. Product indicated on the drawings and described in this section are Endureed® Viva Series synthetic thatch shingles

2.02 MATERIALS

- A. Synthetic Thatch Shingle: Simulated reeds/leaf formed into a textured shingle with variegated colors and cut with a random cut pattern.
 - a. Leaf Style: Endureed® Viva Series – Viva Palm Thatch
 - b. Shingle Dimensions: 32-inches long by 27.5-inches tall (813mm x 699mm)
 - c. Average Exposure Length: up to 9-inches (229mm)
- B. Synthetic Thatch Hip shingle: Simulated reeds/leaf formed into a textured shingle with variegated colors and cut with a random cut pattern. (Not used in all roof applications)
 - a. Leaf Style: Endureed® Viva Series – Viva Palm Thatch
 - b. Provides an average of 9 linear inches (229mm) of hip coverage
- C. Optional Self-Adhering Sheet Underlayment.
 - a. Product: Elastophene® Stick HR FR+ GR (Manufactured by Soprema.)

2.03 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D-4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F-1667; 11 gauge stainless-steel, annular ring shank, sharp-pointed, with a minimum 11/32-inch (8.7mm) diameter flat head and of sufficient length to penetrate ¾ inch (19mm) into solid wood decking or extend at least 1/8 inch (3.175mm) through plywood sheathing.

2.04 METAL FLASHING AND TRIM

- A. Sheet Metal Flashing and Trim: Comply with the requirements in Section 07600 – SHEET METAL FLASHING.
 - a. Recommended Sheet Metal: 16oz copper.
 - b. Alternate Sheet metal as recommended or approved by an architect and/or local building department.



PART 3- EXECUTION

3.01 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of work.
 - a. Examine roof sheathing to verify that sheathing joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
 - b. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored; and that provision has been made for flashings and self-adhering membrane.
 - c. Submit written report, to the Contractor signed by Installer, listing conditions detrimental to performance of work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.