

# ENDUREED

SYNTHETIC THATCH ROOFING SYSTEMS

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SECTION 07316

**SYNTHETIC THATCH ROOFING**

**PREMIUM KILIMANJARO**

PREMIUM LINE

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## PART 1 – GENERAL

### 1.1 SUMMARY

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This section specifies Endureed Premium Kilimanjaro synthetic thatch roofing, a premium-grade fire-resistant and wind-resistant roofing system from the Endureed Premium Series. Kilimanjaro recreates the tight, closely cropped profile of East African highland grass thatching with unlimited custom color options and unmatched quality and durability. The system is designed to look great and last for decades. Suitable for new construction and retrofit applications.

### 1.2 REFERENCES

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#### Codes and Standards:

- Florida Product Approval FL-21047
- ASTM E-108 – Standard Test Methods for Fire Tests of Roof Coverings
- ASTM E-84 – Standard Test Method for Surface Burning Characteristics of Building Materials
- ASTM D-3161 – Standard Test Method for Wind Resistance
- UL 1897 – Standard for Uplift Tests for Roof Covering Systems
- UL 2218 – Standard for Impact Resistance of Prepared Roof Covering Materials
- TAS 107-95 / TAS 100-95 – Florida Building Code wind and wind-driven rain tests
- BS 476 Part 3 and Part 7 – British Standard fire tests
- ASTM G21-96 – Resistance to Fungi
- GB 8624-2012 – Chinese National Standard for fire performance

### 1.3 SUBMITTALS

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- Product data sheets including specifications and available colors
- Florida Product Approval FL-21047 certificate
- Fire, wind, impact, and fungi resistance test reports
- Installation instructions for all substrate configurations
- Warranty documentation (base warranty + supplemental 30-year warranty document)
- Samples: two (2) samples per component and color specified

### 1.4 QUALITY ASSURANCE

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**Manufacturer:** Global Innovation LLC, 313 SW Windswept Glen, Lake City, Florida 32024

**Phone:** 1-877-784-2824

**Website:** endureed.com

**Product Line:** Endureed Premium Series

### 1.5 DELIVERY, STORAGE, AND HANDLING

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- Deliver materials in manufacturer's original packaging with labels intact
- Store shingles in a dry, well-ventilated, weather-tight location
- Do not expose boxes to excessive moisture
- Overstacking boxes or excessive moisture may cause boxes to collapse
- Do not remove wrapping from bulk pallet until final placement at installation location

**Packaging:**

Component	PN	Qty/Box	Box Weight	Box Size
Field Shingle	73668	14 pcs	65 lbs	44" × 22" × 5" (1,120 × 560 × 130 mm)
Ceiling Shingle	73696	12 pcs	65 lbs	44" × 22" × 5"
Starter Shingle	–	25 pcs	65 lbs	44" × 22" × 5"
Eave Wadd	73670	4 pcs	30 lbs	44" × 22" × 5"
Hip/Ridge	74170	30 pcs	65 lbs	44" × 22" × 5"
Eave Wadd Corner	745839	N/A	N/A	N/A

**Pallet:** 24 boxes per pallet

**Container:** 20-ft: 10 pallets; 40-ft: 20 pallets

## 1.6 WARRANTY

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Endureed Premium Kilimanjaro carries a base 20-Year Limited Warranty covering faults in materials and workmanship. An extended 30-Year Warranty is available — see manufacturer's supplemental warranty document for complete terms and conditions. Contact manufacturer for complete warranty documentation.

## PART 2 – PRODUCTS

### 2.1 MANUFACTURER

Global Innovation LLC  
 313 SW Windswept Glen  
 Lake City, Florida 32024  
 1-877-784-2824 | endureed.com

### 2.2 MATERIALS

**Product Description:**

Endureed Premium Kilimanjaro is a PVC-based synthetic East African grass thatch roofing system with stainless steel binders from the Endureed Premium Series. Inspired by the tightly packed highland grasses of East Africa, Kilimanjaro features a distinctive close-cropped 5" exposure profile that creates a smooth, dense thatch appearance. Unlimited color options allow faithful recreation of regional natural thatching traditions. Components include field, ceiling, eave wadd, eave wadd corner, and hip/ridge shingles for a complete roofing solution.

**Key Features:**

- 30-Year Warranty\* (\*See supplemental warranty document; base warranty: 20-year limited)
- Manufactured in the USA
- Fire and Wind Resistant
- Florida Product Approval FL-21047
- Class 4 Impact Resistance (UL 2218)
- No fungi growth (ASTM G21-96)
- Unlimited custom color options – Premium Series
- No maintenance required

**Component Specifications:**

Component	PN	Size	Weight	Exposure	Coverage	Material
Field Shingle	73668	42" x 12" (1,067 x 305 mm)	3.64 lb (1.65 kg)	5" (127 mm)	1.45 sq ft	PVC / SS binder
Ceiling Shingle	73696	42" x 14" (1,067 x 356 mm)	4.75 lb (2.15 kg)	12" (305 mm)	3.5 sq ft	PVC / SS binder
Eave Wadd	73670	48" x 4" (1,219 x 102 mm)	6.2 lb (2.81 kg)	–	4 LF	PVC / HDPE backer
Eave Wadd Corner	745839	4" h (102 mm)	0.5 lb (0.23 kg)	–	–	PVC / SS
Hip/Ridge	74170	14" (356 mm)	1.22 lb (0.55 kg)	4" (102 mm)	–	PVC / SS binder

**Available Colors:**

Endureed Premium Kilimanjaro (Premium Series) is available in unlimited custom colors to match any natural thatching style. Contact manufacturer for color samples and selection guidance. Custom colors are ordered per project.

## 2.3 FIRE, WIND, AND PERFORMANCE TESTING

Test Standard	Result
Florida Product Approval	FL-21047
(Fire) ASTM E-108	Class A
(Fire) ASTM E-84	Flame Spread 12.5 / SDI 225
(Wind) ASTM D-3161	Class F (110 MPH)
(Wind) TAS 107-95	110 MPH (Maximum test speed)
(Wind + Rain) TAS 100-95	Pass
(Wind Uplift) UL 1897	82.5 PSF (equivalent to 200 mph)
(Impact) UL 2218	Class 4
(Fire) BS 476 Part 3	Ext.S.AA
(Fire) BS 476 Part 7	Class 2
(Fungi) ASTM G21-96	No Fungi Growth
(Fire) GB 8624-2012 (China)	Class B1

## 2.4 INSTALLED SYSTEM WEIGHT

Plywood Deck (Standard)	3.75 lbs/sq ft
Plywood Deck (Class A Assembly)	5.75 lbs/sq ft
Metal Deck	5.03 lbs/sq ft
Concrete Deck	3.75 lbs/sq ft

## 2.5 ACCESSORIES

### Fasteners – Standard (Plywood Deck):

- 1.75" (45 mm) 11-gauge stainless steel ring shank nails, 4 fasteners per shingle

### Fasteners – Class A Fire-Rated Assembly:

- 2.50" (64 mm) 10-gauge stainless steel ring shank nails, 4 fasteners per shingle

### Fasteners – Metal Substrate:

- 1.25" (32 mm) 11-gauge stainless steel ring shank nails, 4 fasteners per shingle

### Fasteners – Concrete Substrate:

- 1.75" (45 mm) stainless steel concrete screws, 3 per shingle

### Underlayment:

- Single layer Tan Soprema Elastophene Stick HR FR+ GR Cap Sheet (#07066) adhered to substrate

**Class A Fire-Rated Assembly – Additional:**

- 1/2" (13 mm) DensDeck gypsum board, fastened at 12" (305 mm) O.C. to plywood

## PART 3 – EXECUTION

### 3.1 EXAMINATION

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Examine substrates and conditions prior to installation. Verify compliance with manufacturer's requirements.

#### **Minimum Roof Pitch:**

3:12 (14°) or greater. Total installed system thickness: 1" (25.4 mm).

### 3.2 PREPARATION

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- Verify roof deck is clean, dry, and structurally sound
- Install underlayment per manufacturer's instructions prior to shingle installation

### 3.3 INSTALLATION

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#### **Plywood Deck (Standard):**

- Minimum 15/32" (12 mm) plywood deck over rafters per local code
- Install single layer Soprema Elastophene Stick HR FR+ GR Cap Sheet (#07066) adhered to plywood
- Install shingles at 5" (127 mm) exposure
- Fasten with 1.75" (45 mm) 11-gauge stainless steel ring shank nails, 4 per shingle

#### **Plywood Deck – Class A Fire-Rated Assembly:**

- Minimum 15/32" (12 mm) plywood deck over rafters per local code
- Install 1/2" DensDeck gypsum board fastened at 12" O.C. to plywood
- Install Soprema Elastophene Stick HR FR+ GR Cap Sheet (#07066) adhered to DensDeck
- Fasten with 2.50" (64 mm) 10-gauge stainless steel ring shank nails, 4 per shingle

#### **Metal Deck (Retrofit over Existing Corrugated Metal):**

- Existing corrugated metal roofing substrate
- Install 15/32" (12 mm) minimum plywood over existing metal deck
- Install Soprema cap sheet adhered to plywood
- Install shingles at 5" (127 mm) exposure
- Fasten with 1.25" (32 mm) 11-gauge stainless steel ring shank nails, 4 per shingle

#### **Concrete Substrate:**

- Apply Soprema Elastophene Stick HR FR+ GR Cap Sheet (#07066) directly to concrete
- Install shingles at 5" (127 mm) exposure
- Fasten with 1.75" (45 mm) stainless steel concrete screws, 3 per shingle

### 3.4 CLEANING AND PROTECTION

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- Remove all installation debris upon project completion
- Annual inspection is recommended to keep the roof looking its best
- No ongoing maintenance required under normal conditions

END OF SECTION 07316