



## TECHNICAL PRODUCT DATA SHEET

## TECHNICAL DETAILS

WIDTH  $\pm \frac{1}{8}$ "  
13 $\frac{3}{4}$ " [337 mm]

LENGTH  $\pm \frac{1}{4}$ "  
38 $\frac{7}{8}$ " [0.99 m]

EXPOSURE  
5 $\frac{5}{8}$ " [143 mm]

GRANULE ADHESION  
0.35 g [typical results]

SHINGLES/SQUARE  
66 [3 bundles/square]

SQUARES/PALLET  
16

## TEST COMPLIANCE

ASTM D7158 CLASS H

ASTM D3462 ASTM D3161 CLASS F

ASTM D3018 TYPE I

ASTM E108 CLASS A FIRE RATING

UL 2218 CLASS 3 CSA A123.5

ICC APPROVAL - ESR-3150

ICC-ES AC438

FBC APPROVAL - FL36890



See page 2 for solar reflectance technical data.

## FEATURES & BENEFITS

- Sustainable NEX® asphalt technology
- Superior granular embedment and tear resistance
- Larger nailing area of The Zone®
- Double rain seal protection
- 3M™ Smog-Reducing Granules



<sup>†</sup> CRRC and California Energy Code Title 24, Part 6 only applies to Highlander® Golden Amber, Ivory Mist, Sienna Blend, and Silverwood shingles.

Effective 10/23  
Supersedes all previously published data.

Check for most current version at  
[WWW.MALARKEYROOFING.COM](http://WWW.MALARKEYROOFING.COM)



# HIGHLANDER®

## NEX® Polymer Modified Architectural Shingles

## PRODUCT USE

241 Highlander® is a laminated asphalt shingle fortified with sustainable NEX® polymer modified asphalt technology for enhanced granule adhesion and increased weather protection. Highlander® features the exclusive nailing accuracy-enhancing design of The Zone®, a larger nailing area that dramatically improves correct fastener placement. Highlander® Golden Amber, Ivory Mist, Sienna Blend, and Silverwood shingles have measured radiative property values listed with the Cool Roof Rating Council, and can be used to comply with California Energy Code Title 24 Part 6 Cool Roof Requirements and Los Angeles County, California Title 31 Cool Roof Requirements. Please consult Malarkey's Technical Services Department for approval of roof systems.

## COMPOSITION & MATERIALS

Highlander® is manufactured on a non-woven fiberglass mat and impregnated on both sides with NEX® polymer modified bitumen (asphalt) that is compounded with a fire-retardant mineral stabilizer. Its surface incorporates an innovative combination of ceramic granules that provide varied color, weatherability, even smog reduction; other granules increase energy efficiency by adding solar reflectivity.

## APPLICATION

Shingles should be applied over a Malarkey underlayment or an approved, code-compliant substitute. Installation instructions, in three languages, are available on the shingle wrapper by scanning the corresponding Quick Response [QR] code, on our website at [WWW.MALARKEYROOFING.COM](http://WWW.MALARKEYROOFING.COM), or by contacting your local Malarkey representative. Industry standards are found in NRCA manuals. Shingles should be attached to decking with approved fasteners, and Malarkey recommends the use of corrosion-resistant nails for this purpose. Staples are not allowed.

## PRECAUTION

Highlander® should be protected from the weather and stored in a cool, dry, well-ventilated area until applied. Do not double-stack pallets. Do not use on roofs where pitch is less than 2:12 [2" [51 mm] per 12" [305 mm]]. For slopes 2:12 up to 4:12 [4" [102 mm] per 12" [305 mm]], a double layer of underlayment is required [IBC & IRC have an exception for a single layer of ASTM D1970 underlayment in lieu of a double layer]. Highlander® has a factory-applied self-sealing strip that activates in warm weather. When applied in cold weather or windy locations, hand-sealing is recommended but not required if sealant activates. On slopes greater than 21" [533 mm] per 12" [305 mm], hand-sealing underneath and six nails are required. Contact Malarkey for further conditions and instructions.

## WARRANTY

Malarkey Roofing Products® offers various warranties to meet specific requirements. The warranty packages available for Highlander® include a Limited Lifetime Warranty, a 110 mph [177 kph] Limited Wind Warranty, and can be combined with other Malarkey products for a 130 mph [209 kph] Enhanced Wind Warranty. Contact your roofer, local distribution center, or Malarkey for full details. See below for TECHNICAL ASSISTANCE contact information.

Highlander® and other Malarkey products are available throughout North America and Pacific Rim countries.

Visit [WWW.MALARKEYROOFING.COM](http://WWW.MALARKEYROOFING.COM) for additional product information and availability.

Note: Malarkey Roofing Products® Inventory SKU number for this product: 241 Highlander®

**TECHNICAL ASSISTANCE:**  
Malarkey has technical services assistance available.

Contact Malarkey for details:  
Call weekdays 7:00 am to 5:00 pm Pacific Time at  
800-545-1191 or 503-283-1191.

[technicalinquiries@malarkeyroofing.com](mailto:technicalinquiries@malarkeyroofing.com)

**CORPORATE OFFICE:**  
3131 N. Columbia Blvd. Portland, OR 97217-7472  
P.O. Box 17217 Portland, OR 97217-0217

**TELEPHONE:**  
503-283-1191 or 800-545-1191

**FAX:** 503-289-7644

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TECHNICAL PRODUCT DATA SHEET



# HIGHLANDER<sup>®</sup>

## NEX<sup>®</sup> Polymer Modified Architectural Shingles

### SOLAR REFLECTANCE TECHNICAL DATA

Highlander<sup>®</sup> Golden Amber, Ivory Mist, Sienna Blend & Silverwood are listed with the Cool Roof Rating Council.

Highlander<sup>®</sup> Golden Amber, Ivory Mist, Sienna Blend & Silverwood have tested to these radiative property values:



*Cool Roof Rating Council ratings are determined for a fixed set of conditions, and may not be appropriate for determining seasonal energy performance. The actual effect of solar reflectance and thermal emittance on building performance may vary.*

*Manufacturer of product stipulates that these ratings were determined in accordance with the applicable Cool Roof Rating Council procedures.*

	HIGHLANDER <sup>®</sup> [GOLDEN AMBER]		HIGHLANDER <sup>®</sup> [IVORY MIST]		HIGHLANDER <sup>®</sup> [SIENNA BLEND]		HIGHLANDER <sup>®</sup> [SILVERWOOD]	
	INITIAL	WEATHERED	INITIAL	WEATHERED	INITIAL	WEATHERED	INITIAL	WEATHERED
SOLAR REFLECTANCE	0.21	0.21	0.25	0.24	0.21	0.20	0.21	0.21
THERMAL EMITTANCE	0.94	0.91	0.92	0.95	0.92	0.92	0.93	0.93
SOLAR REFLECTIVE INDEX (SRI)	22	21	26	26	21	20	21	21
Related Product ID Licensed Manufacturer ID: 0850 Classification: Production Line	0850-0024		0850-0055		0850-0025		0850-0065	

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