

EMPIRE™ PLUS

Polymeric Shake Tile Roof System

DESCRIPTION

Empire Shake Plus™ is a polymer based Class A and C roof tile designed to provide the look of natural cedar shake. Empire Shake tiles are manufactured with a state of the art formulation using virgin and recycled polyolefin polymers.

Empire Shake Plus tiles come in 6" (152 mm), 9" (229 mm) and 12" (305 mm) widths. Empire Shake Plus tiles are 20" (508 mm) long, 3/4" (19 mm) nominal thickness, and are available in fourteen (14) standard colors.

ADVANTAGES

Empire Shake Plus provides the look of wood shake with these added advantages:

- High impact resistance providing protection from hail, falling branches, foot traffic, ice and snow damage.
- The color in Empire Shake Plus tiles has been added during formulation providing for color throughout the product. As with all roofing products, natural weathering will occur.
- EcoStar provides warranties for Empire Shake Plus tiles for up to 50 years.

INSTALLATION

Temperature – If tiles have been stored in temperatures below 45°F (7°C), they must be restored to a temperature above 45°F (7°C) before installation. Ambient temperature should be at least 34°F (1°C) and rising.

Substrate – Empire Shake Plus should only be installed on a minimum of 1/2" (13 mm) plywood, minimum 7/16" (11 mm) OSB or minimum 3/4" (19 mm) tongue and groove wood decking. Empire Shake Plus should not be applied over existing roof materials. Existing roof materials must be removed down to the deck, prior to installation.

Slope – Empire Shake Plus is not recommended for slopes less than 3/12 (14°). On roofs less than 4/12 (18°) and greater than 3/12 (14°), Empire Shake Plus must be installed with a 7" (178 mm) exposure. On roof slopes 4/12 (18°) or greater Empire Shake Plus may be installed with either a 7" (178 mm) or 8" (203 mm) exposure. On roofs 6/12 (27°) or greater, Empire Shake Plus may be installed with a 7" (178 mm), 8" (203 mm) or 9" (229 mm) exposure.

Underlayment – Prior to installation, **Glacier Guard™** underlayment should be applied to all rakes, valleys, ridges, hips, eaves and any protrusions. **Aqua Guard™** is then applied over the remaining deck surface. For Class A fire rated assembly, **GAF VersaShield®** should be used instead of **Aqua Guard™** and should cover the entire roof deck, including the areas covered by **Glacier Guard™**.

Fasteners – Fasteners must be ring shank stainless steel. **EcoStar Fasteners** are available in either hand drive style or pneumatic coil.

Color Variation - All Empire Shake Plus tiles come with shade variation. This shade variation may occur differently from pallet to pallet. Application of the product should not begin until all material has been delivered to the project site. Because of this shade variation the applicator must take precautions to ensure that the various shades of the product are properly blended. Tiles must be taken from different pallets and bundles to ensure consistency in application. **NOTE: EcoStar will not be responsible for the improper blending and application of the product. Contact EcoStar Customer Service for available factory-blended options.**

Natural weathering will produce further shade variations, even in tiles appearing to be identical in color when new.

Ventilation – Roof venting should be installed at the same time as the ridge tiles. EcoStar's **EcoVent™** ridge venting is recommended for quality attic ventilation and an improved aesthetic appearance of the EcoStar roof system.

Please refer to the Empire Shake Installation Guide for specifics of installation.

PRODUCT SPECIFICATIONS

PRODUCT CHARACTERISTIC	
Length	20" (508 mm)
Width	6" (152 mm)
	9" (229 mm)
	12" (305 mm)
Thickness	3/4" (19 mm)
PACKAGING INFORMATION	
Tiles per bundle	24
Weight per bundle	50 lbs. (22.68 kg)
Bundles per pallet	36
Weight per pallet	1,880 lbs. (853 kg)
Linear feet per bundle	18 ft. (5.49 m)
FORMULATION	
Materials	Thermoplastic Olefin
PHYSICAL PROPERTIES (Typical)	
Operating Range	-25°F to 200°F (-32°C to 93°C)
Tensile (D-412)	1,500 psi (10,342 kpa)
Water Absorption (D-570)	0% by wt.
APPLICABLE STANDARDS	
UL Listed 790 Fire Resistance	Class A and C
UL 2218 Impact	Class 4
Texas Dept. of Insurance	Listed
Miami-Dade	Listed

WARRANTIES

EcoStar warrants this product to be free of defects in workmanship and materials at the time of shipment from EcoStar's factory. EcoStar will at its option either supply new product or refund the purchase price of any product found to be defective hereunder.

EcoStar's limited warranties are the only warranties extended by EcoStar with respect to its materials. There are no other warranties, including the implied warranties of merchantability and fitness for a particular purpose. EcoStar specifically disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever.*

The dollar value of EcoStar's liability and buyer's remedy under this limited warranty shall not exceed the purchase price of the EcoStar material in question.

*See www.ecostarllc.com for available warranties.



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PRODUCT TECHNICAL DATA