

EMPIRE™ PLUS

Polymeric Shake Tile Roof System

DESCRIPTION

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

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

INSTALLATION

It is recommended that Empire Shake Plus tiles be installed by professional roofing applicators to ensure a quality installation.

The following are simplified steps for installing Empire Shake Plus tiles.

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

1. An approved deck is covered with EcoStar's **Glacier Guard™** where specified and either EcoStar's **Aqua Guard™** and/or **GAF VersaShield®** underlayment as needed per building code requirements.
2. Beginning at roof eave a row of **Empire Shake** tiles is installed as a starter row. Empire Shake Plus tiles **should not** be used as starter row tiles.
3. Place a row of Empire Shake Plus tiles directly over the starter row, covering the tile gap with a full tile.
4. Using the measurement lines begin installing tiles per specified pattern

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.

LIMITATIONS

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.

Temperature – If tiles have been stored in temperatures below 45° F, it is required that the tiles be brought back to an ambient material temperature above 45° F before installation.

Substrate – Empire Shake Plus tiles should only be installed on a minimum of 1/2" plywood, minimum 7/16" OSB or minimum 3/4" tongue and groove wood decking. Empire Shake Plus tiles 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 tiles are not recommended for slopes less than 3/12. On roofs less than 4/12 and greater than 3/12, Empire Shake Plus tiles must be installed with a maximum exposure of 7". On roofs greater than 4/12, Empire Shake Plus tiles may be installed with either a 7" or 8" exposure. On roofs 6/12 or greater, Empire Shake Plus tiles may be installed with a 7", 8" or 9" 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.

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

PRODUCT SPECIFICATIONS

FORMULATION		
Materials	Thermoplastic Olefin	
PRODUCT CHARACTERISTIC	Units	Results
Length	in.	19
Width	in.	6, 9, 12
Thickness	in.	3/4 (nominal)
PHYSICAL PROPERTIES	Units	Results
Operating Range	°F	-25° to 200°
Tensile (D-412)	psi	500
Water Absorption (D-570)		0% by wt.
PACKAGING INFORMATION	CLASS C	
Tiles per bundle		24
Weight per bundle	lbs.	37 (nominal)
Bundles per pallet		36
Weight per pallet	lbs.	1332
PACKAGING INFORMATION	CLASS A	
Tiles per bundle		24
Weight per bundle	lbs.	39 (nominal)
Bundles per pallet		36
Weight per pallet	lbs.	1404
APPLICABLE STANDARDS		
U L Listed 790 Fire Resistance	Class A and C ratings available	
U L Listed 2218 Impact Resistance	Class 4	
Texas Department 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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