



Empire Niagara Slate

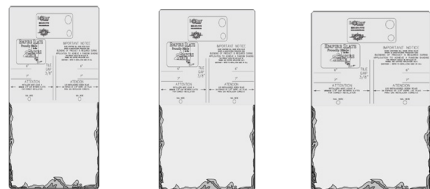
Polymeric Slate Tile Roof System

PRODUCT TECHNICAL DATA

DESCRIPTION

Empire Niagara Slate is a polymer based Class A and C roof tile designed to provide the look of natural stone slate. Empire Niagara Slate is manufactured with a state of the art formulation using virgin and recycled polyolefin polymers.

Empire Niagara Slate comes in 10" (254 mm), 12" (305 mm) and 14" (356 mm) widths. They are 22" (559 mm) long, 5/8" (16 mm) nominal thickness, and are available in fourteen (14) standard colors.



10" (254 mm) 12" (305 mm) 14" (356 mm)

ADVANTAGES

Empire Niagara Slate provides the look of natural slate with these added advantages:

- High impact resistance that provides protection from hail, falling branches, foot traffic, ice and snow damage.
- The color in Empire Niagara Slate 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 Niagara Slate 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 Niagara Slate 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 Niagara Slate should not be applied over existing roof materials. Existing roof materials must be removed down to the deck, prior to installation.

Slope – Empire Niagara Slate is not recommended for slopes less than 3/12 (14°). On roofs less than 6/12 (27°), Empire Niagara Slate must be installed with a maximum exposure of 9" (229 mm). On roofs 6/12 (27°) or greater, Empire Niagara Slate may be installed with either a 9" (229 mm) or 10" (254 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**, or EcoStar-approved alternate, 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 Niagara Slate tiles come with shade variation. EcoStar tiles that have been ordered and supplied to the job site under one EcoStar sales order number are blended at the factory and do not need to be blended onsite before installation. It is always the responsibility of the applicator to make frequent inspections from the ground or other vantage point to ensure that random shading occurs. EcoStar will not be held responsible for correcting the appearance of non-random installations. Roofers must inspect the roof frequently to prevent customer dissatisfaction.

NOTE: If EcoStar tiles have been supplied to the job site under two or more EcoStar sales order numbers, all tiles must be blended together on-site before installation. Specific blending instructions can be found at www.ecostarllc.com on the "Resource Library" page. EcoStar will not be held responsible for correcting the appearance of unblended installations.

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

Ventilation – The use of ridge venting systems is highly recommended. Mushroom cap style vents may be used, but ridge venting provides better venting and improves the aesthetic appearance of the roof system.

Please refer to the Niagara Slate Installation Guide for specifics of installation.

PRODUCT SPECIFICATIONS

	10" Tiles	12" Tiles	14" Tiles
PRODUCT CHARACTERISTICS			
Length	22" (559 mm)		
Width	10" (254 mm)	12" (305 mm)	14" (356 mm)
Nominal Thickness	5/8" (16 mm)		
PACKAGING INFORMATION			
Tiles per bundle	10		
Weight per bundle	19 lbs. (8.62 kg)	24 lbs. (10.89 kg)	29 lbs. (13.15 kg)
Bundles per pallet	96	72	60
Weight per pallet	1,824 lbs. (827 kg)	1,728 lbs. (784 kg)	1,740 lbs. (789 kg)
Linear feet per bundle	8.33 ft. (2.54 m)	10 ft. (3.05 m)	11.67 ft. (3.56 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. See www.ecostarllc.com for available warranties.