



## Quick Estimate Reference Guide

	Bundles Per Square					Nails	
	6" Exposure (152 mm)	7" Exposure (178 mm)	8" Exposure (203 mm)	9" Exposure (229 mm)	10" Exposure (254 mm)	Length	Per Bundle
<b>EcoStar Slate</b>							
Majestic Slate 12" (305 mm) Traditional, Beavertail, Beveled Edge	8	6.88				1 1/2"	50
Majestic Slate 10" (254 mm) Traditional	9.24	7.96					
Majestic Slate Chisel Point	8						
Majestic Slate Random-Width Blend	7.4	6.35				1 1/2"	72
Empire Slate 12" (305 mm) Traditional	10	8.57	7.5			1 1/2"	40
Empire Slate 10" (254 mm) Traditional	12	10.0	9				
Empire Slate Beavertail and Beveled Edge	10	8.57					
Empire Slate Chisel Point	10						
Empire Slate Random-Width Blend	8.9	7.6	6.7			1 1/2"	60
Niagara Slate 14" (356 mm)			12.52	11.13	10	1 3/4"	20
Niagara Slate 12" (305 mm)			14.54	12.86	11.63		
Niagara Slate 10" (254 mm)			17.35	15.42	13.88		
Niagara Slate Random-Width Blend			8.08	7.4	6.65		
<b>EcoStar Shake</b>							
Seneca Shake	7.41	6.35	5.56			1 1/2"	72
Empire Shake	7.41	6.35	5.56	4.94			
Empire Plus	11.11	9.5	8.34	7.4		1 1/2" or 1 3/4"	48
Empire Aspen Blend - 2/3 Shake and 1/3 Plus	11.11	9.5	8.34	7.4		1 1/2" or 1 3/4"	48
Niagara Shake				7.5	6.76	1 3/4"	48
<b>Hip &amp; Ridge</b>							
Slate/Shake Hip & Ridge	5 lineal ft/ bundle					2" or 2 1/2"	20
Niagara Slate Hip & Ridge		7 lineal ft/ bundle	8 lineal ft/ bundle	9 lineal ft/ bundle		2 1/2"	24

### Notes:

- 2 1/2" nails required for ridge caps over ridge vent.
- High wind installations require double the number of nails per bundle.
- Roofs with a 6/12 (26.6°), or greater, pitch can be installed at any of the listed exposures.
- This document is for estimating purposes only and does not include waste factor or starter row tile requirements. Actual usage will vary based upon roof configuration.



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### EcoStar Gold Star Warranty Tile Exposure and Deck Substrate Requirements

Proper Tile Exposure	Slope			
	3/12 (14°)	4/12 (18.4°)	5/12 (22.6°)	6/12 (26.6°) & Greater
<b>Majestic Slate</b>				
Traditional 12" (305 mm), 10" (254 mm), Beavertail, Beveled Edge and Random-Width Blend	6" (152 mm)			6" (152 mm) 7" (178 mm)
Chisel Point	6" (152 mm)			
<b>Empire Slate</b>				
Traditional 12" (305 mm) and 10" (254 mm) and Random-Width Blend	6" (152 mm)	6" (152 mm) 7" (178 mm)		6" (152 mm) 7" (178 mm) 8" (203 mm)
Beavertail and Beveled Edge	6" (152 mm)			6" (152 mm) 7" (178 mm)
Chisel Point	6" (152 mm)			
<b>Niagara Slate</b>				
10" (254 mm), 12" (305 mm) 14" (356 mm) and Random-Width Blend	9" (229 mm)	9" (229 mm)	9" (229 mm)	9" (229 mm) 10" (254 mm)
<b>Seneca Shake</b>				
	7" (178 mm)	7" (178 mm)	7" (178 mm)	7" (178 mm) 8" (203 mm)
<b>Empire Shake, Shake Plus &amp; Aspen Blend</b>				
	7" (178 mm)	7" (178 mm) 8" (203 mm)	7" (178 mm) 8" (203 mm)	7" (178 mm) 8" (203 mm) 9" (229 mm)
<b>Niagara Shake</b>				
	9" (229 mm)	9" (229 mm)	9" (229 mm)	9" (229 mm) 10" (254 mm)

#### Deck Substrate Requirements for Gold Star Warranty:

- Nominal 1/2" (12.7 mm) or thicker plywood
- Nominal 7/16" (11.1 mm) or thicker OSB
- 3/4" (19.1 mm) or thicker tongue and groove or shiplap boards
- Other deck types considered on a case by case basis, contact EcoStar Technical Department