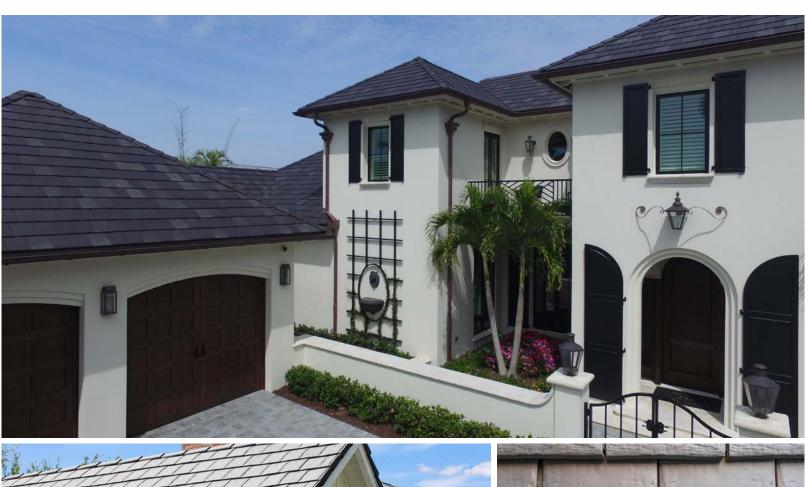


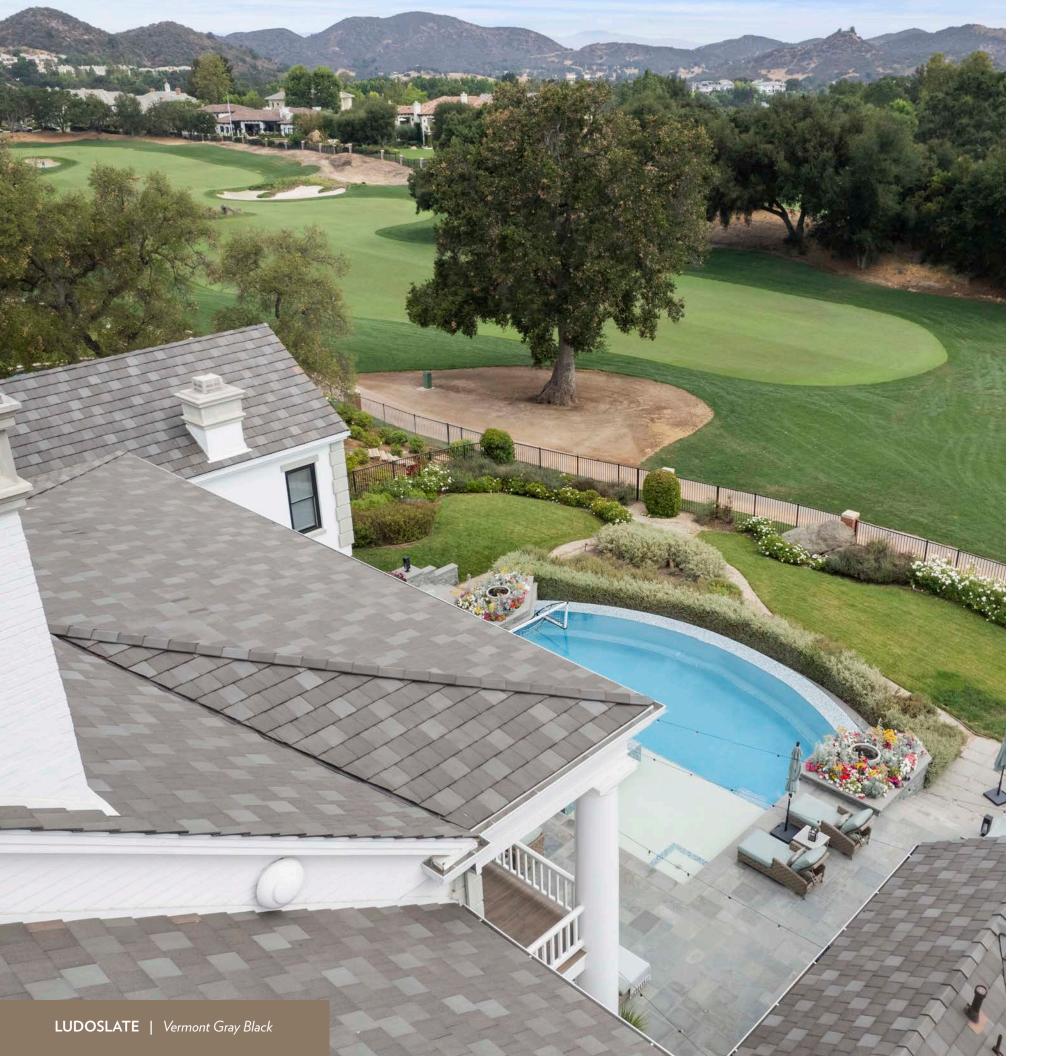
Trusted. Timeless. Terra Cotta.







THE SLATE COLLECTION



ABOUT TERRA COTTA SLATE ALTERNATIVES

Some of our most popular profiles, Ludowici's terra cotta slate roofing products offer the true rustic aesthetic of real natural slate materials, without the maintenance.

Unlike other slate roof alternatives, our terra cotta clay roof tiles are easier and less expensive to install than natural slate, and are more durable than synthetic slate. Our terra cotta slate roof tiles are walk-able, noncombustible, and carry Grade 1 ASTM certification for less than 2% water absorption, including our LudoSlate lightweight tile option, which is perfect for renovation.



BENEFITS

ASTM C1167 Grade 1 Certified

Fireproof: Class A Fire Rated

Lowest water absorption

No warping or curling

Salt-Resistant

Made for Freeze-Thaw

Lightweight

Unmatched durability

Sustainable material

Low maintenance

Domestic product for over 130 years

75-Year Warranty, including color

Custom color capabilities









SLATE VS. CLAY WHAT'S THE DIFFERENCE?

Natural slate is one of the most expensive roofing materials on the market, and still requires adequate maintenance over time. Unlike Ludowici clay tiles, natural slate:

- Has limited color availability and no customization
- Has a variance that is difficult to match in other building products and can cause a dead end in design if no matching choices are available.
- Can be hard to replace. Slate is run by lot, and each lot is different. If you need
 a replacement, it can be VERY difficult to find a blend-able match.
- Can be very heavy depending on the thickness selected.
- Can often have a long lead time.
- May be able to import seemingly economical options, but they are typically low quality, with rapid spalling rates and can become discolored.





Pictured: Slate products showing delaminating and mold growth

SLATE TILE PROFILES

Ludowici slate roof alternatives feature all the beauty of natural slate with the enhanced durability and longevity of terra cotta. Our slate tiles come in varying degrees of natural, quarried, and stone profiles. Additionally, we have multiple custom shingle tile options that fit the aesthetic of real slate or stone roofing products.



LUDOSLATE



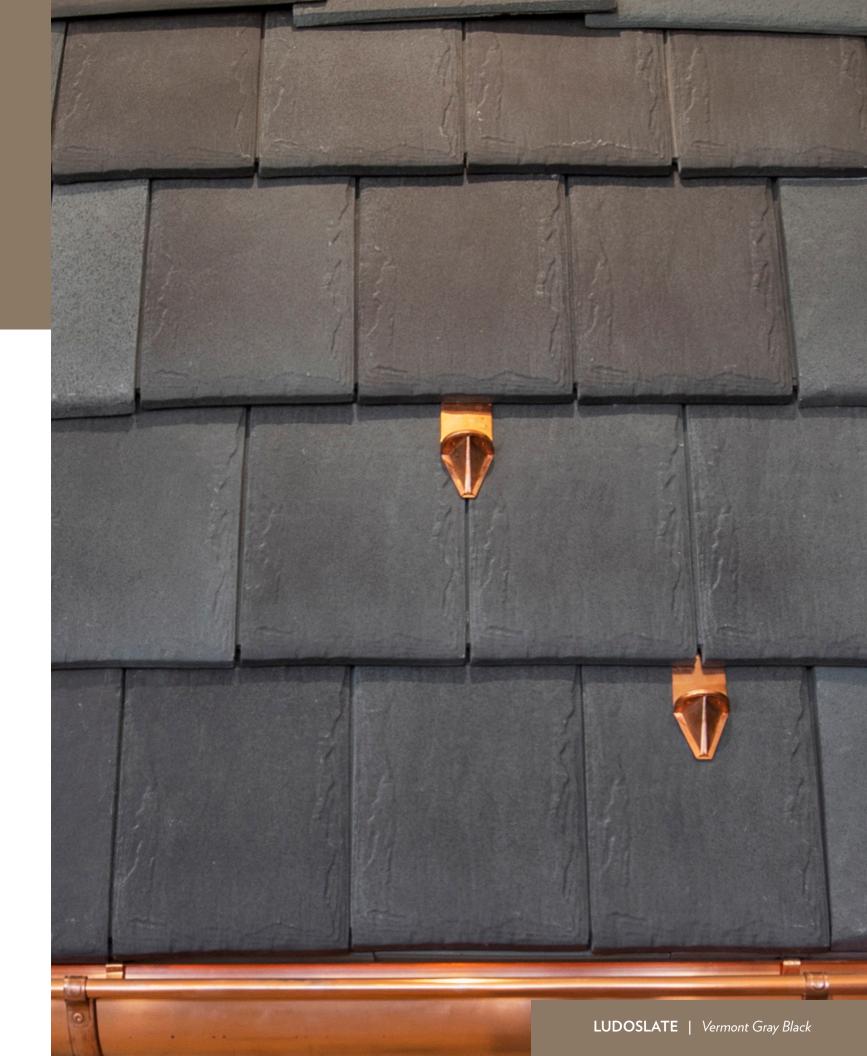
LUDOSLATE PREMIER



COTSWOLD



CUSTOM SHINGLE



SLATE TILE PROFILES

Our slate alternative terra cotta roofing offers the true rustic aesthetic of real natural materials, without the maintenance. Our LudoSlate profile can be ordered in one size or a Premier option offering three sizes to create a random appearance. Tiles can be installed in straight rows or staggered for a more rustic appearance. Made with a pressed quarried texture, Ludowici's slate alternatives are easy to install, maintenance-free, and carry a 75-year material warranty, including color.



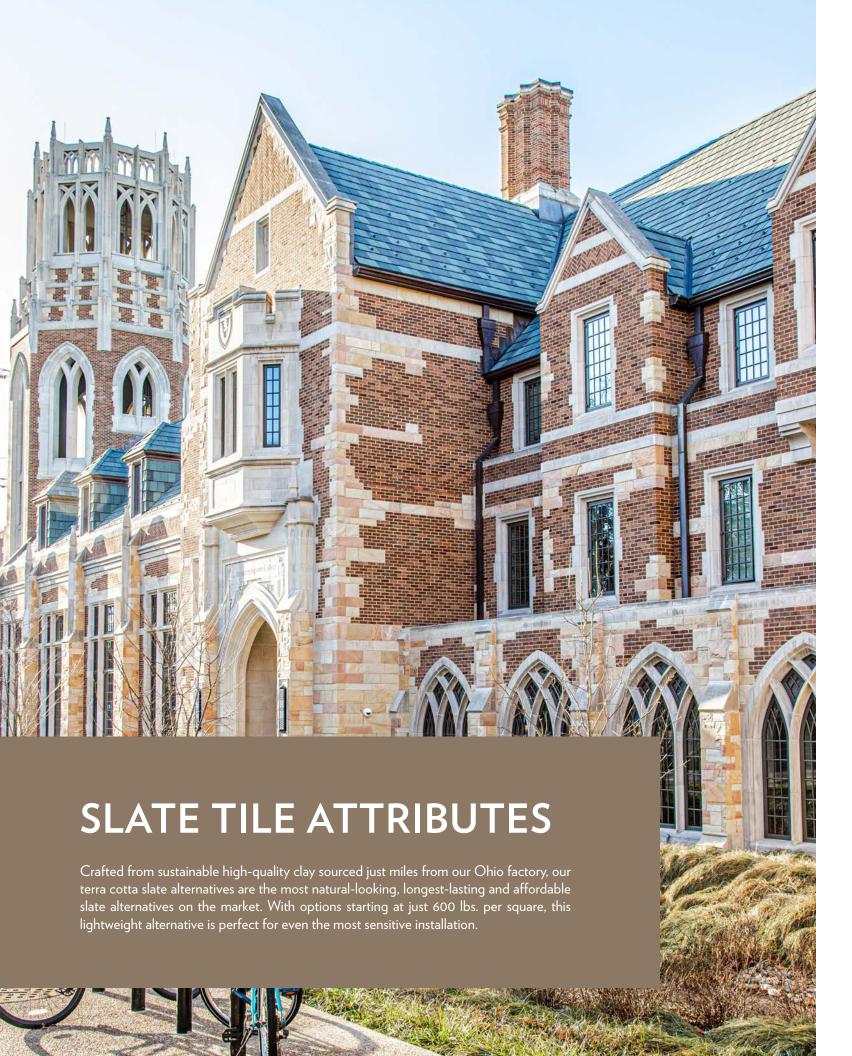
Pictured: LudoSlate Premier in Ebony Mist











PHYSICAL CHARACTERISTICS							
PROFILE	WEIGHT PER SQUARE (LBS)	PIECES PER SQUARE	OVERALL SIZE	EXPOSURE	REC. MIN. SLOPE*	BASE TEXTURE	
LudoSlate	598	111	10 ^{3/4} ° x 16" x 3/4"	10 ^{1/8°} x 13" x 3/4"	3:12*	Natural Slate	
LudoSlate Premier	676	119 (Half Tile: 10; Two-Thirds Tile: 9; Full Tile: 100)	5 ^{3/4} " x 16" x 3/4" 7 ^{3/4} " x 16" x 3/4" 10 ^{3/4} " x 16" x 3/4"	5" x 13" x 3/4" 7" x 13" x 3/4" 10 ^{1/8} " x 13" x 3/4"	3:12*	Natural Slate	
Cotswold	1,925	333	7" x 14 ^{3/8°} x 5/8"	7" x 6 ^{5/16°}	5:12*	Stone	

**Table sorted by lightest to heaviest product profiles

*This is our recommended minimum slope. For slopes less than our recommended minimum, additional information needs to be considered. A Ludowici "Whitepaper" regarding discussions needed is available from your local sales representative for additional consideration.

SLATE COLOR BLENDS

Ludowici slate tiles come standard in 12 different color blends, or can be used with custom colors or blends to meet your design aesthetic. Our firing process ensures your Ludowici roof will not fade or discolor—a statement we stand behind with our industry-leading 75-year material warranty.



ANTIQUED BRUNSWICK **BLACK**



EBONY MIST



SLATE GRAY



ANTIQUED MONTPELIER GREEN

MONTPELIER GREEN

SLATE RED



ANTIQUED SLATE GRAY



MOTTLED GREEN PURPLE



STRATA GRAY



BRUNSWICK BLACK

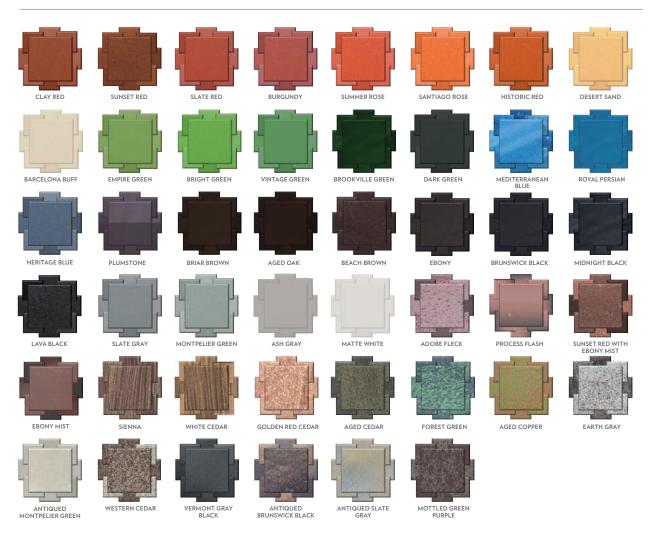


PLUMSTONE

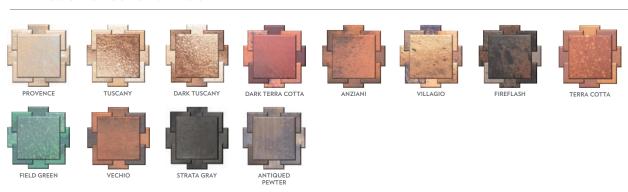


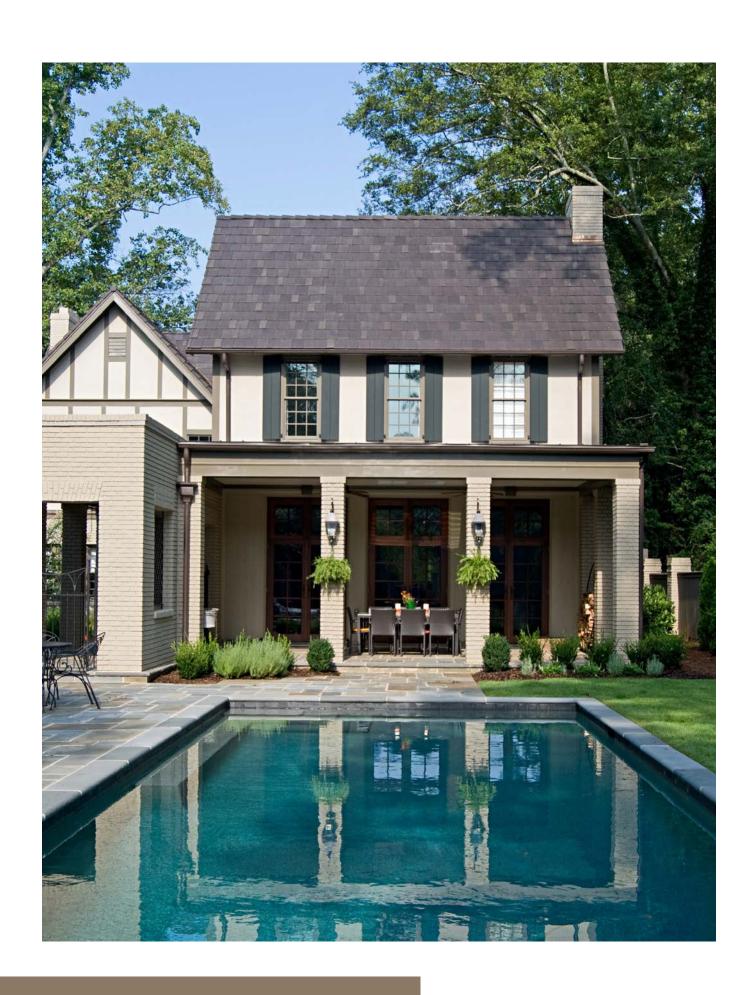
VERMONT GRAY BLACK

STANDARD COLOR BLENDS



IMPRESSIONIST COLOR BLENDS





OUR GREEN PROMISE

At Ludowici, we are committed to manufacturing architectural terra cotta products that honor their heritage from the earth. There are many qualifications that we strive to meet each and every day to help us live up to this promise. Ludowici products are made of locally sourced, natural materials that are produced through a unique process that creates no waste. Ludowici tiles are chemically inert and 100% recyclable, have an average life expectancy of over 100 years and offer energy savings commonly exceeding 20% over asphalt roofing.

Ludowici products also earn some or all of the many certifications from the four main organizations setting the standards for sustainability: Cool Roof Rating Council, Cradle to Cradle, Energy Star and U.S. Green Building Council's LEED program.













PRINCETON UNIVERSITY

PRINCETON, NEW JERSEY

In 2005, our first small module terra cotta wall cladding project began when Princeton University set out to develop a 10-year plan to revitalize student housing on their campus. Completed in 2015, Princeton University's newest graduate student community, Lakeside Apartments and Townhomes, provides housing for over 715 graduate students and their families in a collection of townhomes and mid-rise apartments on 14 acres located on the main campus.

The decision to creatively use traditional roof tile by Ludowici as a wall cladding material resulted in the birth of our NeXclad small-format product line, first used in the LudoSlate surface texture for both roof and wall components on this project.

One of the Lakeside project's main goals was to improve the condition and sustainability of their buildings while limiting the impact on the surrounding woodlands—a goal in part achieved by choosing our terra cotta wall cladding.

The Lakeside community is highlighted by an extensive student common area featuring a multi-purpose event space, staff offices, community living room, full kitchen, outdoor deck and barbecue, computer facilities, exercise room, and wrapped 550 car parking structure. Winding through the complex are pathways and vistas carefully located to connect Princeton's campus to adjacent Lake Carnegie.

This large-scale project on such a prestigious campus faced a number of challenges throughout the design and construction phases. The design team conducted thorough testing of two existing 1960's era concrete structures on the site and found that building new structures, with better orientation and an improved thermal envelope, would reduce carbon greenhouse gas emissions by 42% over a 10-year period, all while adding an additional 300 beds.

Once the direction was set to replace the existing structures, the design team was tasked with creating a complex that would look and feel like a community, all while maintaining the richness and scale of the existing university buildings. As part of Princeton's sustainability efforts, the complex would also need to blend with the surrounding woodlands and meet LEED Silver Certification.

Awards: LEED Silver Certification; USGBC NJ Residential Project of the Year

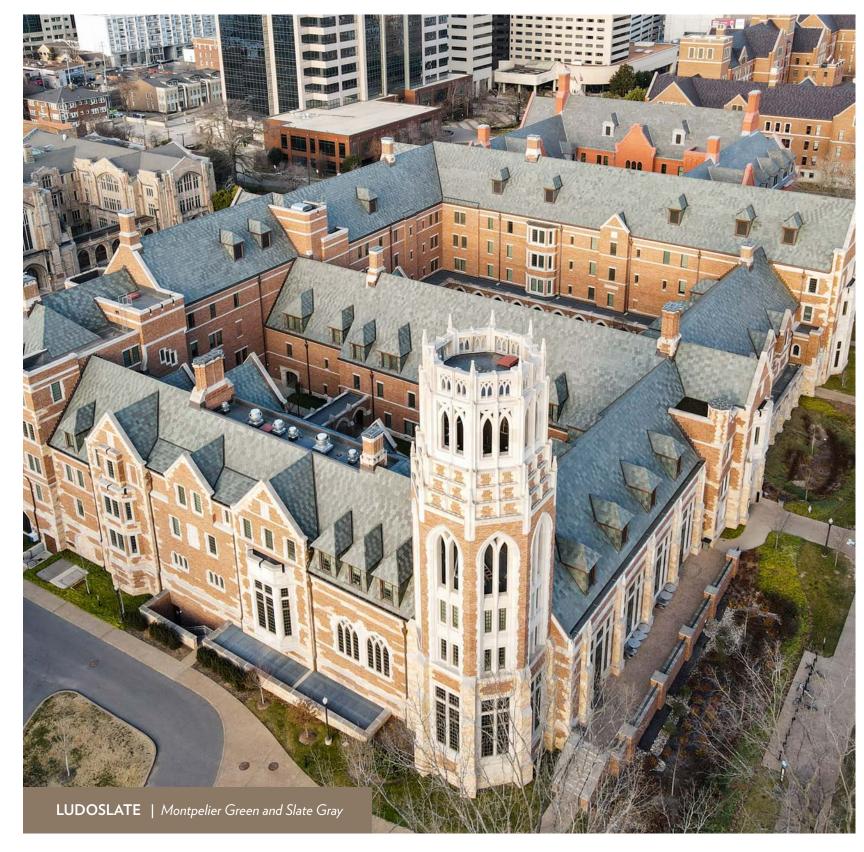




<u>____ 24 ____</u>

VANDERBILT UNIVERSITY

NASHVILLE, TENNESSEE



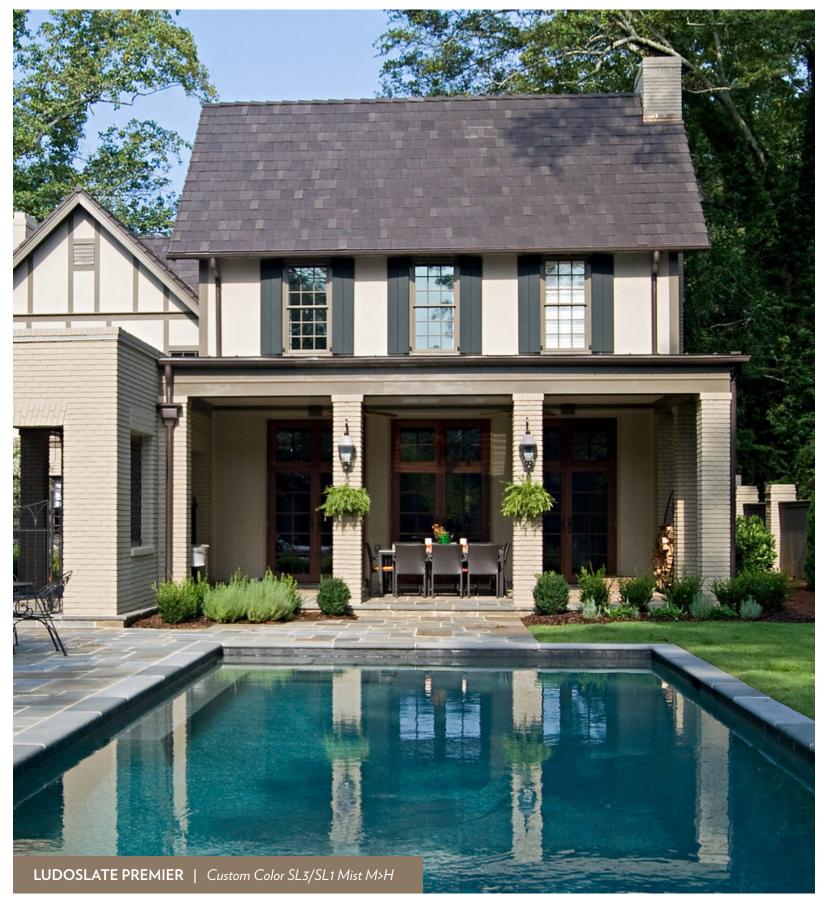


<u>___ 27 ___</u>













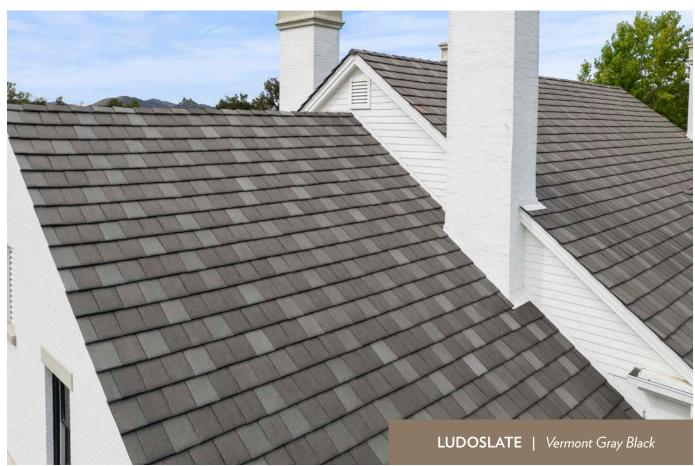
<u>____ 30 ____</u>







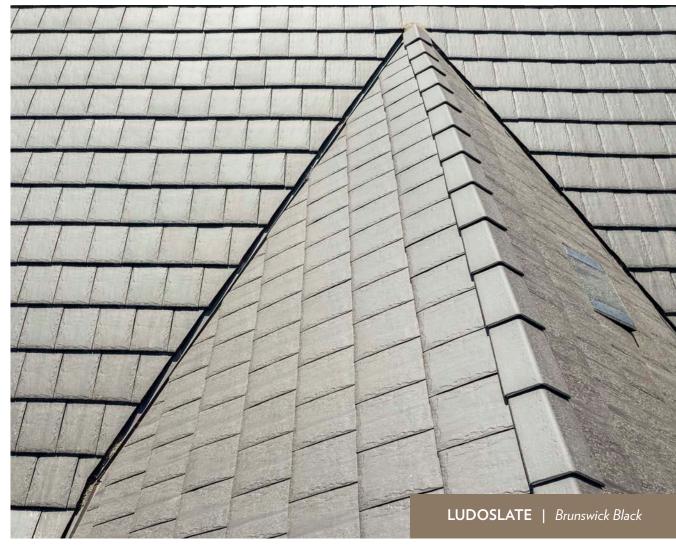




















- 36 ----



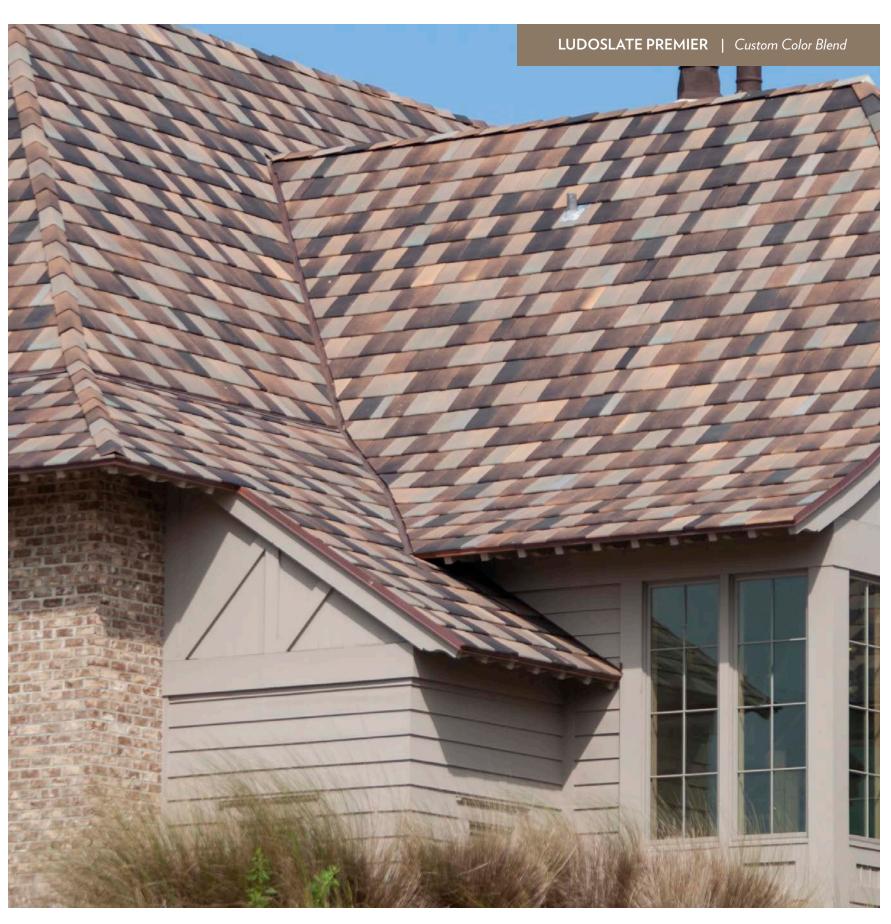




— 38 —











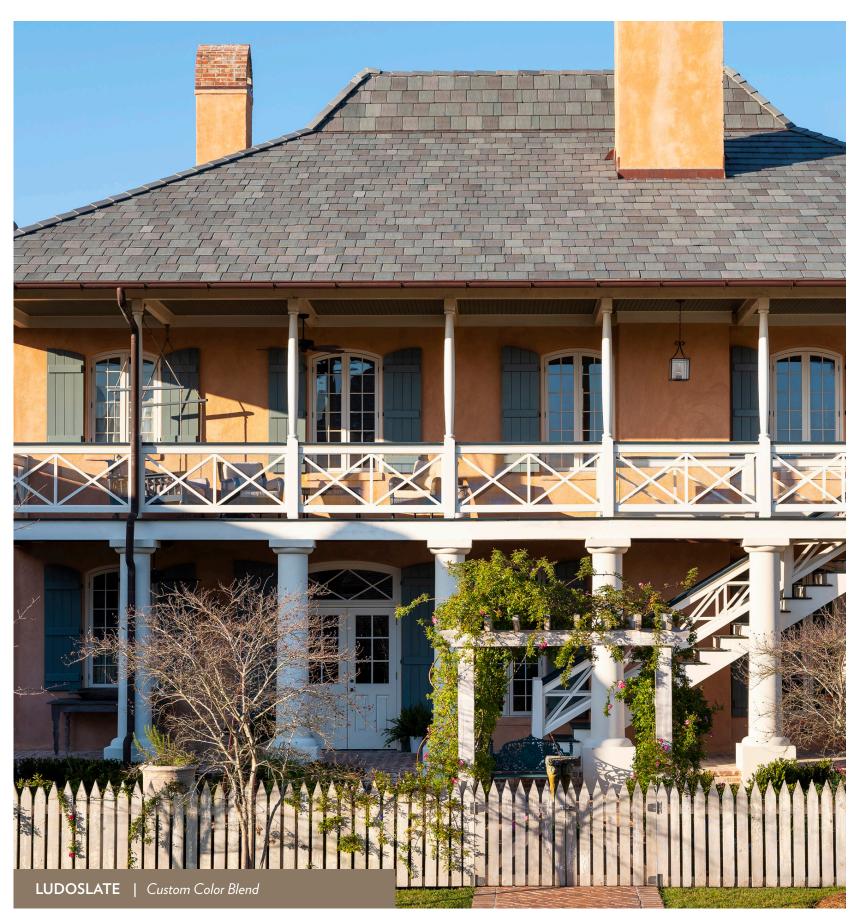




















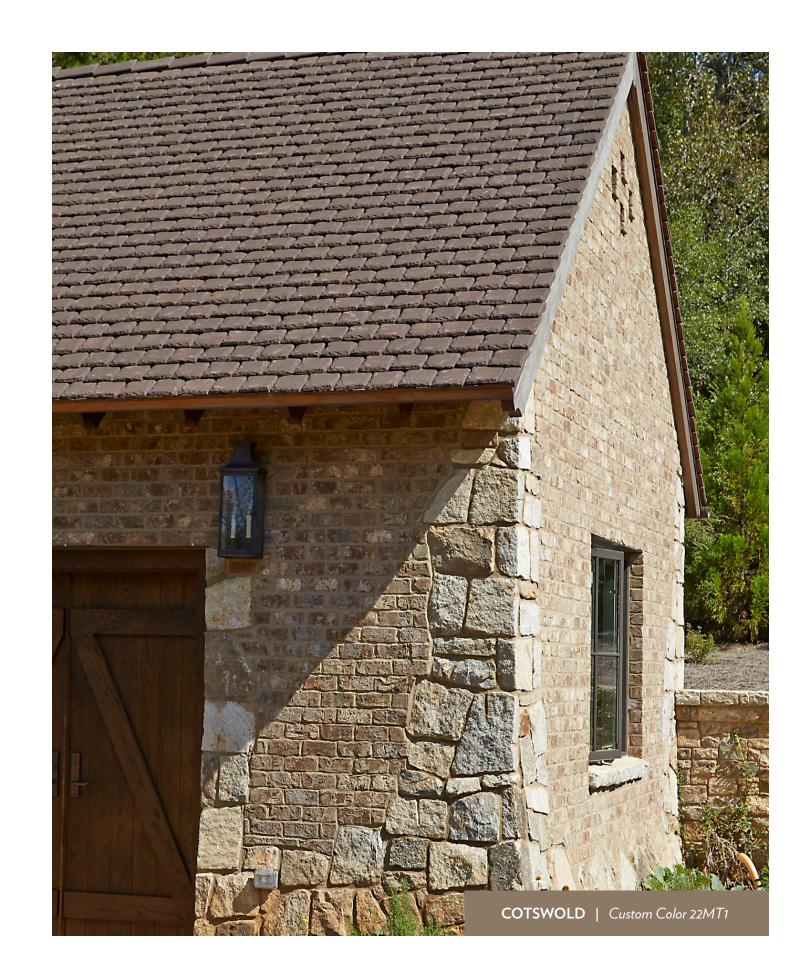


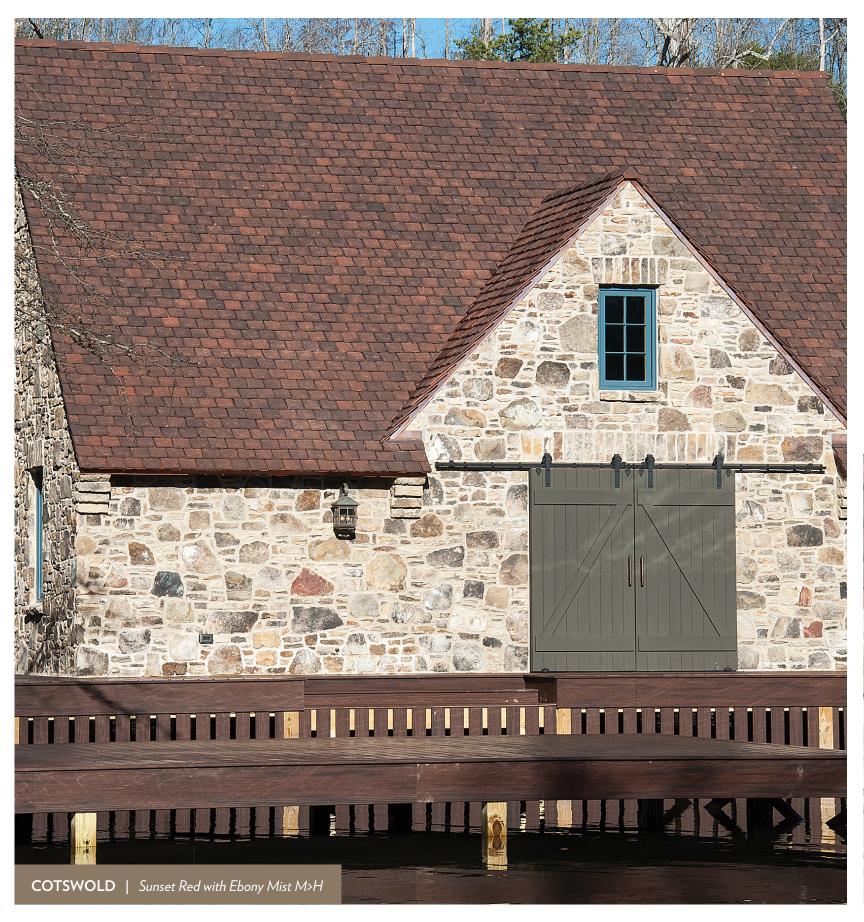
























COTSWOLD SHINGLE TILE



Ludowici's Cotswold shingle tiles feature uneven lengths, chiseled edges and a split stone textured surface reminiscent of Cotswold stone from the English countryside. Cotswold shingle tiles add character and charm to any home design. Cotswold shingle tiles are part of Ludowici's Slate Collection and are available in standard and custom matte colors, mists and blends. See the *Colors of Ludowici* brochure for more information about our extensive color program.

PHYSICAL CHARACTERISTICS

CHARACTERISTIC	COTSWOLD SHINGLE TILE	PROFILE
Weight Per Square	1925 lbs.	
Pieces Per Square	333 pcs.	
Overall Size	7" x 14 ^{3/8} " x 5/8"	
Exposure	7″ x 6 ³ л6″	
Recommended Minimum Slope**	5:12**	
Color Blends	Available in all standard and custom colors. For more information about Ludowici's color program, please see the Colors of Ludowici brochure.	Land State of the
Base Texture	Stone Also available in custom textures. Please see the Terra Cotta Textures brochure for more information.	

^{**}In considering slopes less than our recommended minimum, please see Ludowici's Roof Slope Whitepaper available from your local sales representative.

APPROVALS & CERTIFICATIONS

- Miami-Dade NOA No: 12-0904.14
- State of Florida Approval No: FL 13777
- ◆ ASTM C1167 Grade 1 Roof Tile With Water Absorption Less Than 2%
- Class A Fire Rated
- ◆ IAPMO UES ER-452

LUDOWICI WARRANTY

All Ludowici tiles are manufactured in the United States and carry a 75-year warranty against color fading and manufacturing defects. For complete warranty details, please visit www.ludowici.com.





GREEN ATTRIBUTES

Ludowici terra cotta is an energy-efficient, sustainable choice for your new roof.
Learn more about our green story in the Ludowici *Green Promise* brochure.



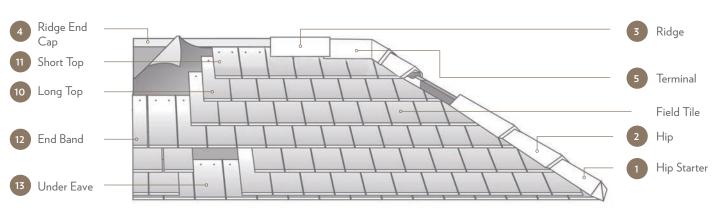






Photos are for representation purposes only and should not be used for final product selection. Tiles ordered should be chosen from actual samples available at the time of order. Ludowici reserves the right to alter and adjust products, colors and finishes at any time. Please contact a sales representative for more information.

COTSWOLD SHINGLE TILE



		Visit www.ludo	owici.com to download a	detailed product sheet	on Hip, Ridge and Dec	orative Hip Starters.
1	2	3	4		5	
HIP STARTER	HIP	RIDGE	CLOSED RIDGE END		TERMINAL	
V-Hip Starter	V-Hip	V-Ridge	V-Closed Ridge End	V-2 Hip 1 Ridge Terminal		
#168 Hip Starter	#118 Hip Roll	#211 Ridge	#211 Closed Ridge End	#118/#211 2 Hip 1 Ridge Terminal		
CC-Hip Starter	CC-Hip	CC-Ridge	CC-Closed Ridge End	CC-2 Hip 1 RidgeTerminal	CC-Low Bump 2 Hip 1 RidgeTerminal	
#152 Hip Starter	#102 Hip Roll	#206 Ridge	#206 Closed Ridge End	#102/#206 2 Hip 1 RidgeTerminal	#405 High Bump 2 Hip 1 RidgeTerminal	#406 High Bump Gable Terminal
Bonnet Hip Starter*	Bonnet Hip Roll*	Interlocking Ridge*				
	#168 Hip Starter CC-Hip Starter #152 Hip Starter	HIP STARTER HIP V-Hip Starter #168 Hip Starter #118 Hip Roll CC-Hip Starter #152 Hip Starter #102 Hip Roll Bonnet Hip Roll*	HIP STARTER HIP RIDGE V-Hip Starter V-Hip V-Ridge V-Ridge W-Ridge V-Ridge CC-Hip Starter CC-Hip CC-Ridge #152 Hip Starter #102 Hip Roll #206 Ridge Bonnet Hip Starter* Interlocking Ridge*	HIP STARTER HIP RIDGE CLOSED RIDGE END V-Closed Ridge End V-Closed Ridge End W-Closed Ridge End W-Closed Ridge End CC-Hip Starter #118 Hip Roll #211 Ridge CC-Ridge CC-Closed Ridge End CC-Closed Ridge End #206 Closed Ridge End #206 Closed Ridge End Interlocking Ridge*	HIP STARTER HIP RIDGE CLOSED RIDGE END V-Hip V-Hip V-Ridge V-Closed Ridge End V-Closed Ridge End Tills Hip 1 Ridge Terminal #118 Hip Roll #211 Ridge Terminal CC-2 Hip 1 Ridge Terminal CC-2 Hip 1 Ridge Terminal #206 #102 Hip Roll #102 Hip Roll #206 Ridge End #102 Hip Ridge Terminal #102 Hip Roll #102 Hip Roll #102 Hip Roll #103 Hip Roll #104 Ridge Terminal	HIP STARTER HIP RIDGE CLOSED RIDGE END TERMINAL V-Hip Starter V-Hip Starter W-Hip Starter W-Ridge V-Closed Ridge End TERMINAL V-Closed Ridge End TERMINAL V-Closed Ridge End TERMINAL TERMINAL

^{*}Roof slope on each intersecting roof plane needs to be identical to use these pieces.

FITTINGS					
PROFILE	10 LONG TOP	11 SHORT TOP	12 END BAND	UNDER EAVE	HEADER COURSE
	·	<u>(</u>			
Actual Size	7 ^{3/8} " x 10 ^{1/2} "	7 ^{3/8} " x 6 ^{1/2} "	3 ^{1/2} " x 14 ^{5/8} "	7 ^{3/8} " x 8 ^{1/2} "	7 ^{3/8} " x 14 ^{5/8} "
Exposure	7 ^{3/8} " x 6 ^{5/16"}	7 ^{3/8} " x 3 ^{5/16} "	3 ^{1/2} " x 6 ^{5/16} "	7 3/8"	7 ^{3/8} " x 11 ^{5/8} "
Weight	4.2 lbs./pc.	2.6 lbs./pc.	2.9 lbs./pc.	3.4 lbs./pc.	5.8 lbs./pc.

LUDOSLATE INTERLOCKING TILE





LudoSlate is a lightweight interlocking terra cotta roof tile featuring the texture and chiseled edges of natural slate and can be installed in straight rows or staggered for a more authentic look. Random width tiles are available in **LudoSlate Premier.** Available in 12 standard slate colors or a variety of custom colors or blends, LudoSlate will never fade or curl like other slate alternatives. LudoSlate tiles are Class A fire resistant, easy to install, and maintenance-free. LudoSlate is ASTM certified Grade 1.

PHYSICAL CHARACTERISTICS

CHARACTERISTIC	LUDOSLATE	LUE	OSLATE PREM	MIER
Weight Per Square	598 lbs.		676 lbs.	
Pieces Per Square	109 pcs.	119 pcs. (Full Tile: 100, Two-thirds Tile: 9, Half Tile: 10)		
Overall Size	10 ^{3/4} " x 16"	5 ^{3/4} " x 16"	7 ^{3/4} " x 16"	10 ^{3/4} " x 16"
Exposure	10 ^{1/8} " x 13"	5" x 13"	7" x 13"	10 ^{1/8} " x 13"
Minimum Slope	3:12	3:12		
Standard Color Blends	Antiqued Brunswick Black, Antiqued Montpelier Green, Antiqued Slate Gray, Brunswick Black, Ebony Mist, Montpelier Green, Mottled Green Purple, Plumstone, Slate Gray, Slate Red, Strata Gray, Vermont Gray Black (Also available in all standard and custom colors. Please see the Colors of Ludowici for more information.)			
Base Texture		uarried Slate e see our Terra Cotta Textures for more information.)		

*Premier sizes do not come pre-blended on pallets. Each size is packaged individually and must be blended in the field by the installer.

APPROVALS & CERTIFICATIONS

- Miami-Dade NOA No: 13-0430.08
- State of Florida Approval No: FL 13777
- ASTM C1167 Grade 1 Roof Tile With Water Absorption Less Than 2%
- Class A Fire Rated
- ◆ IAPMO UES ER-452
- Texas Department of Insurace (TDI) Approved

LUDOWICI WARRANTY

All Ludowici tiles are manufactured in the United States and carry a 75-year warranty against color fading and manufacturing defects. For complete warranty details, please visit www.ludowici.com.









Ludowici Green Promise brochure.

Ludowici terra cotta is an energy-efficient,

Learn more about our green story in the

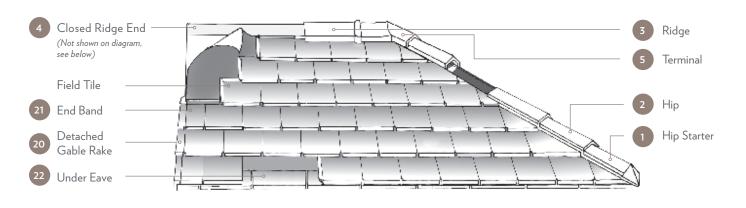
sustainable choice for your new roof.

GREEN ATTRIBUTES





LUDOSLATE



HIP & RIDGE			Visit www.ludo	wici.com to download a	detailed product sheet	on Hip, Ridge and Dec	orative Hip Starters.
PROFILE	1 HIP STARTER	2 HIP	RIDGE	CLOSED RIDGE END		5 TERMINAL	
V-Hip & Ridge Trim Group	V-Hip Starter	V-Hip	V-Ridge	V-Closed Ridge End	V-2 Hip 1 Ridge Terminal		
#118/#211 Hip & Ridge Trim Group	#168 Hip Starter	#118 Hip Roll	#211 Ridge	#211 Closed Ridge End	#118/#211 2 Hip 1 Ridge Terminal		
Circular Cover Hip & Ridge Trim Group	CC-Hip Starter	CC-Hip	CC-Ridge	CC-Closed Ridge End	CC-2 Hip 1 Ridge Terminal	CC-Low Bump 2 Hip 1 Ridge Terminal	
#102/#206 Hip & Ridge Trim Group	#152 Hip Starter	#102 Hip Roll	#206 Ridge	#206 Closed Ridge End	#102/#206 2 Hip 1 Ridge Terminal	#405 High Bump 2 Hip 1 Ridge Terminal	#406 High Bump Gable Terminal

FITTINGS				
PROFILE	DETACHED G	ABLE RAKE	21 END BAND	UNDER EAVE
	Left Kake	Nay.		
Length	16"		16"	12"
Exposure	13″		13"	12"
Weight	2.8 lbs./pc.		5.5 lbs./pc.	2.3 lbs./pc.

Photos are for representation purposes only and should not be used for final product selection. Tiles ordered should be chosen from actual samples available at the time of order. Ludowici reserves the right to alter and adjust products, colors and finishes at any time. Please contact a sales representative for more information.

> **——** 59 **—— ——** 58 ——

THE LUDOWICI DIFFERENCE

UNMATCHED DURABILITY

Ludowici products last a lifetime in any climate-even in the harshest environments - for enduring luxury and beauty that will never fade.

EXCEPTIONAL QUALITY

Ludowici's unmatched materials and processes result in a product that's second to none and delivers a lifetime of beauty.

AFFORDABLE LUXURY

Ludowici has multiple solutions to fit a broad range of lifestyles and budgets.

CUSTOM CRAFTSMANSHIP

Ludowici's product line can be infinitely cutomized and handcrafted to the finest detail to match any color or fit any architectural style - from modern to old-world.

DOMESTIC PRODUCT

For over 130 years, Ludowici tiles have been made in New Lexington, Ohio, with raw materials sourced just five miles away.

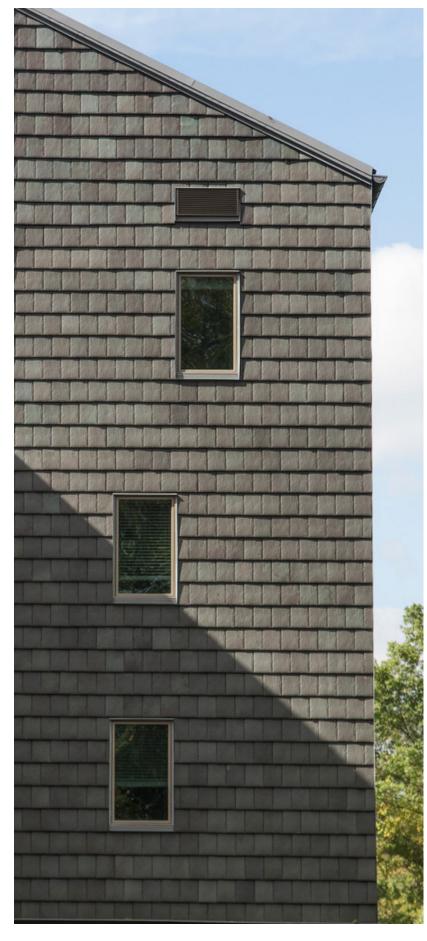
COMPANY LONGEVITY

Our history speaks for itself - homeowners, architects and commercial clients have been trusting Ludowici since 1888.

PERSONAL SERVICE

Every customer receives personal attention and every order is handled with a personal touch.





HOW LUDOWICI COMPARES

CRITERIA	LUDOWICI CLAY TILE	SLATE
General Attributes	75-year warranty including color; lower water absorption than other materials, highly	Traditional roofing material; generally long lifespan; longer lead times for true US slate; Imported
	decorative; Made in the USA	slate of questionable quality
Profiles Available	Spanish, Mission, Flat Shingle, Interlocking, Shake Alternative, Slate Alternative, Raised Profile, Lightweight	Slate
Warranty	75-Year, includes color	Generally no material warranty
Average Lifespan	75+ years	Hard slate can last 75-200 years; Soft slate 50-125 years
Available Colors	50 standard, plus custom color development	Greens, reds, purples, grays, blacks
Color Fastness	Yes	Sometimes—there are some slates that weather, fade, mottle and oxidize over time.
Customizable	Yes	No
Moisture Absorbency	<1% water absorption (ASTM Grade 1)	Depends upon slate composition and slate source location
Mildew/Mold Resistant	Yes	No
Fire-Resistant	Yes	Yes, with underlayment
Walkability	Yes	No
Battens Required	No	No
Maintenance	Minimal, periodic cleaning if desired	Minimal, periodic cleaning
Sealing	No	No
American Made Product	Yes	Not Always

This chart represents industry averages. We encourage you to research the products under consideration and evaluate all costs, installation, environmental and design factors when deciding on your new roof.









4757 Tile Plant Road P.O. Box 69 New Lexington, Ohio 43764

800-945-TILE (8453) www.ludowici.com