

THE COLORS
& TEXTURES
of Ludowici



THE ART & SCIENCE OF LUDOWICI COLOR

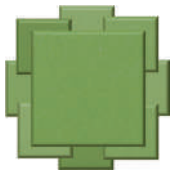
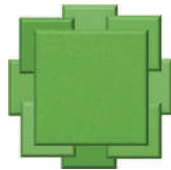
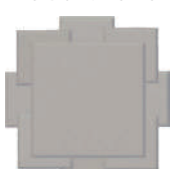
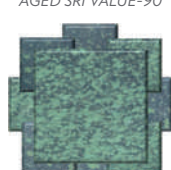
Terra cotta by its very nature is warm, earthy and inviting. Enhancing the natural qualities of terra cotta by adding in a glaze mixture prior to firing can create spectacular colors unable to be replicated on other roofing materials.

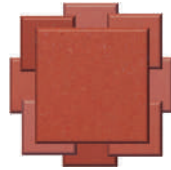
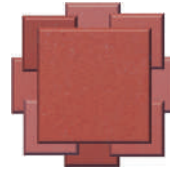
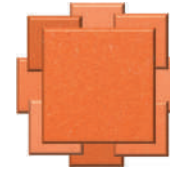
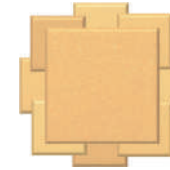
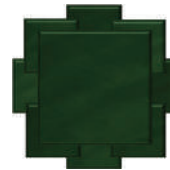
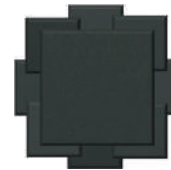
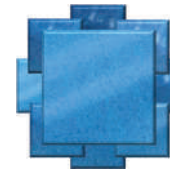
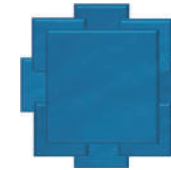
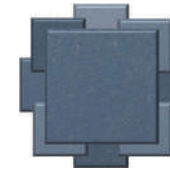
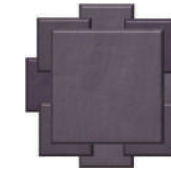
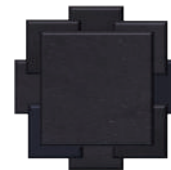
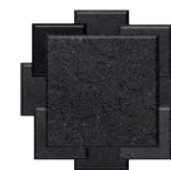
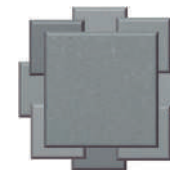
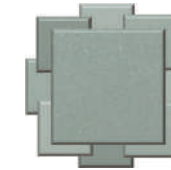
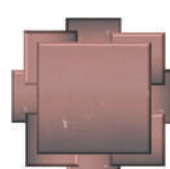
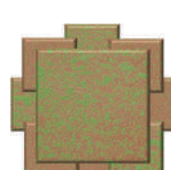
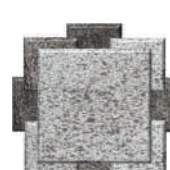
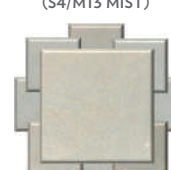
Creating the color of a terra cotta roof tile is part science, and part art. A natural range of tones always exist within any given color. The range of tones that arise from the manufacturing process is a normal and very desirable feature of natural clay tile—imparting richness, character and a more dimensional appearance to the roof.

Ludowici's high temperature firing process produces vibrant colors that do not fade, spall, effloresce, or significantly change over time. Our color glazes are kiln-fired at extreme temperatures during production, fusing the color into the tile and ensuring that the original tones and hues are retained for generations. This is why we are one of the only manufacturers to include color in our industry leading 75-year material warranty.

At Ludowici, we pride ourselves in our long history of color mastery and being widely accepted as the industry expert in glazed terra cotta tile. With over 50 designer color blends and the ability to custom-match nearly any hue, the color possibilities are endless.

STANDARD COLOR BLENDS

 CLAY RED (CR)	 SUNSET RED** (S4) AGED SRI VALUE=32
 EMPIRE GREEN (M14) AGED SRI VALUE=47	 BRIGHT GREEN (M9) AGED SRI VALUE=45
 BRIAR BROWN (M8) AGED SRI VALUE=13	 AGED OAK (M5) AGED SRI VALUE=11
 ASH GRAY (M4) AGED SRI VALUE=27	 MATTE WHITE (M17) AGED SRI VALUE=90
 AGED CEDAR (CR/M9 SPOT)	 FOREST GREEN (M11/M9 SPOT) AGED SRI VALUE=28
 MOTTLED GREEN PURPLE (SL2/SL4 SPOT)	

 SLATE RED (SL5) AGED SRI VALUE=28	 BURGUNDY (M10) AGED SRI VALUE=26	 SUMMER ROSE (M20) AGED SRI VALUE=36	 SANTIAGO ROSE (M26) AGED SRI VALUE=49	 HISTORIC RED (129-01M)	 DESERT SAND (M12) AGED SRI VALUE=51	 BARCELONA BUFF (M7) AGED SRI VALUE=64
 VINTAGE GREEN (M21) AGED SRI VALUE=35	 BROOKVILLE GREEN* (G1) AGED SRI VALUE=26	 DARK GREEN (M11) AGED SRI VALUE=10	 MEDITERRANEAN BLUE* (G3/G5)	 ROYAL PERSIAN* (286-01) AGED SRI VALUE=15	 HERITAGE BLUE (M16) AGED SRI VALUE=10	 PLUMSTONE (SL4) AGED SRI VALUE=8
 BEACH BROWN** (SO/M8) AGED SRI VALUE=23	 EBONY (M13) AGED SRI VALUE=6	 BRUNSWICK BLACK (SL1) AGED SRI VALUE=6	 MIDNIGHT BLACK* (G6) AGED SRI VALUE=0	 LAVA BLACK** (S1/M13) AGED SRI VALUE=12	 SLATE GRAY (SL3) AGED SRI VALUE=23	 MONTPELIER GREEN (SL2) AGED SRI VALUE=33
 ADOBE FLECK (CR/M13 SPOT)	 PROCESS FLASH (CR/M13 PF)	 SUNSET RED WITH EBONY MIST** (S4/M13 MIST)	 EBONY MIST (CR/M13 MIST)	 SIENNA (25MT3/M8 SPOT) AGED SRI VALUE=24	 WHITE CEDAR (25MT3/M12 SPOT)	 GOLDEN RED CEDAR (CR/094-11M SPOT)
 AGED COPPER (CR/M9 SPOT)	 EARTH GRAY (M4/M13 SPOT)	 ANTIQUED MONTPELIER GREEN (M12/SL2 M-H MIST) AGED SRI VALUE=43	 WESTERN CEDAR (M4/M8 SPOT)	 VERMONT GRAY BLACK (SL3/SL1 MIST)	 ANTIQUED BRUNSWICK BLACK (M12/SL1 M-H MIST) AGED SRI VALUE=30	 ANTIQUED SLATE GRAY (M12/SL3 MIST M-H) AGED SRI VALUE=43

*Gloss
**Weathered

IMPRESSIONIST SERIES BLENDS

The Impressionist Series utilizes two to three complementary shades applied randomly over a base color to create the patina of a century-old roof. Standard blends can be selected, or custom blends can be created using different percentages of Impressionist Series colors. Impressionist Series colors are available on all barrel, interlocking, and shingle tiles, excluding French.



PROVENCE**
(SO/M12/021-03M/M4 LG)
AGED SRI VALUE=60



TUSCANY
(173-00M/19MT1/M7/M12)
AGED SRI VALUE=58



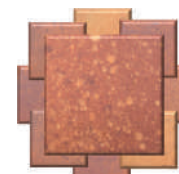
DARK TUSCANY
(173-00/M7/19MT1/19MT1)
AGED SRI VALUE=40



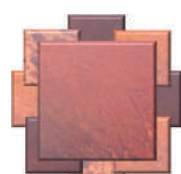
VILLAGIO
(M12/M26/M7/M13)
AGED SRI VALUE=47



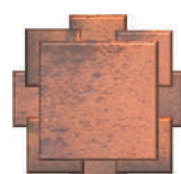
FIREFLASH
(CR/M13/25MT3/349-01M)
AGED SRI VALUE=41



TERRA COTTA
(129-01M/165-01M/M10/173-00M)
AGED SRI VALUE=41



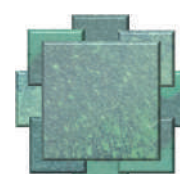
DARK TERRA COTTA
(129-01M/165-01M/19MT1/M10/129-01M)
AGED SRI VALUE=34



ANZIANI
(129-01M/M10/165-01M/M13)
AGED SRI VALUE=34



VECHIO
(129-01M/M10/19MT1/M13)
AGED SRI VALUE=34



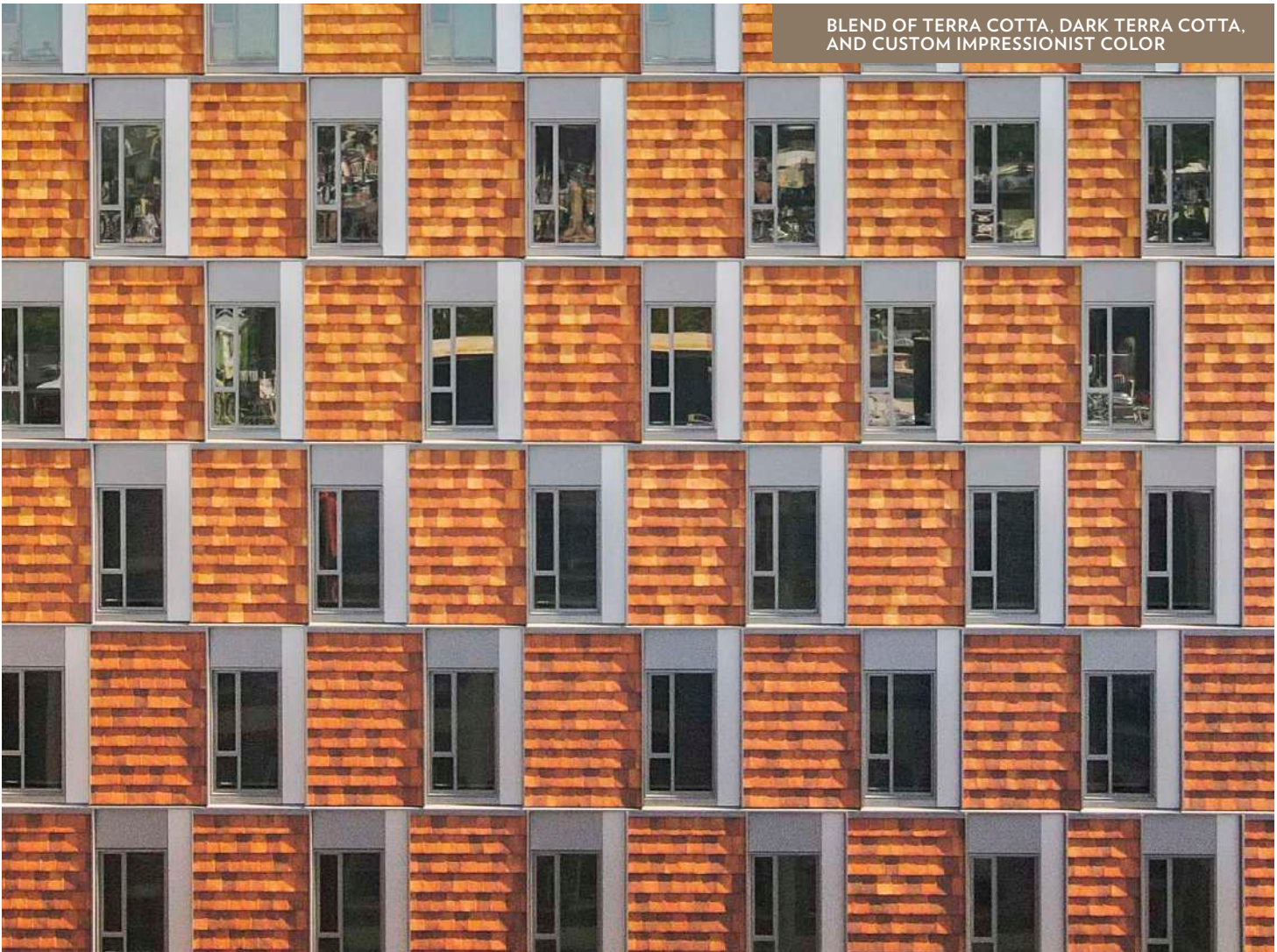
FIELD GREEN
(M11/M9/94-538M)
AGED SRI VALUE=30



STRATA GRAY
(SL3/188-03M/018-09M/SL1)
AGED SRI VALUE=30



ANTIQUED PEWTER
(SL6/090-11M/092-11M)
AGED SRI VALUE=30



CUSTOM COLOR DEVELOPMENT

Our expert ceramic engineers have developed an impressive array of standard design colors over the years, and even more impressive, hundreds of custom colors—all to meet the needs of design professionals around the world. They work hand in hand with architects, designers and homeowners to not only create beautiful custom colors, but also color blends and designs, mixing hues to create a subtle, or dramatic, one-of-a-kind roof statement.

Mixing a custom glaze color is not like mixing a paint color—there are different techniques and skill sets that must be applied. Our ceramic engineers build off of a basic formula. Then they must mix, adjust, and fire multiple trials to test each outcome. Those fired colors (glazes) are analyzed, adjusted, and mixed time and time again until the desired color is developed.

In addition to our standard texture offerings, our ceramic engineers can work with you to create a custom surface texture suitable for your tile. When factoring in texture, be sure to note the surface of your tile can affect the final color. Whether you are trying to match a historic tile, want to combine a number of standard textures or create your own surface texture, Ludowici craftsmen will work with you to make your design vision a reality.

SHAKE COLOR BLENDS

Ludowici also offers several wood shake alternatives in a variety of surface textures mirroring the appearance of real wood shakes with pressed grooves, scratching, and rugged butts. LudoShake, part of our lightweight product offering, is perfect for renovations. For an authentic appearance, we recommend these color blends:



AGED CEDAR



EARTH GRAY



EBONY MIST



GOLDEN RED CEDAR



SIENNA



WESTERN CEDAR



WHITE CEDAR



BRUNSWICK BLACK



ANTIQUED BRUNSWICK BLACK



EBONY MIST



MONTPELIER GREEN



ANTIQUED MONTPELIER GREEN



MOTTLED GREEN PURPLE



PLUMSTONE



SLATE GRAY



ANTIQUED SLATE GRAY



SLATE RED



VERMONT GRAY BLACK



STRATA GRAY

SLATE COLOR BLENDS

Ludowici offers terra cotta slate alternative products featuring the chiseled edges of quarried slate and pronounced texture allowing for a robust slate look. LudoSlate is offered as our lightweight terra cotta slate alternative option. We recommend the above slate color blends for an authentic appearance.



VERMONT GRAY BLACK

COLOR PROCESS

As our color is fired in and chemically bonded with the tile substrate, Ludowici terra cotta roof tiles will not lose their original color intensity under normal environmental conditions. And unlike some hard roofing products, the surface of our tiles will never become marred by unsightly white salt deposits, causing efflorescence. However, in areas subject to pollution, especially those with acid rain, the surface of the tiles may become weathered or experience deposits that can slightly alter color over time. Matte finishes are more susceptible than those with high-gloss.

Working with a natural material like terra cotta, it is impossible to produce a monochromatic tile. In most cases, the color is applied by spraying the surface of a wet tile with glaze—a mixture of glass frit, silicas, and pigments—prior to firing. At kiln temperatures over 2000 degrees Fahrenheit, the spray components fuse onto the surface, becoming color fast backed by our 75-year warranty. *See warranty documents for specific details and limitations.*

Some colors are made from a two-step process involving a base coat and overspray. These colors will naturally display a broader range in tones as the overspray varies in its coverage over the base coat. A broader range will also be produced in colors utilizing high iron content. The amount of variation between tones for a selected color is a result of any of the following production factors including: temperature variations in the kiln; position of each tile in the kiln; spray patterns and resulting coverage; and subtle natural differences in clay, pigment and frit composition.

Recognizing that leaded glazes represent a serious and real threat to the safety of workers and the environment, Ludowici discontinued their use many years ago. Clay tile roofs found on historic buildings often used leaded glazes, and matching those colors using today's non-leaded glazes is virtually impossible, as the tile color is profoundly impacted by glaze chemistry. While exact color match is not possible, rest assured that Ludowici's color development team will make the closest match possible.

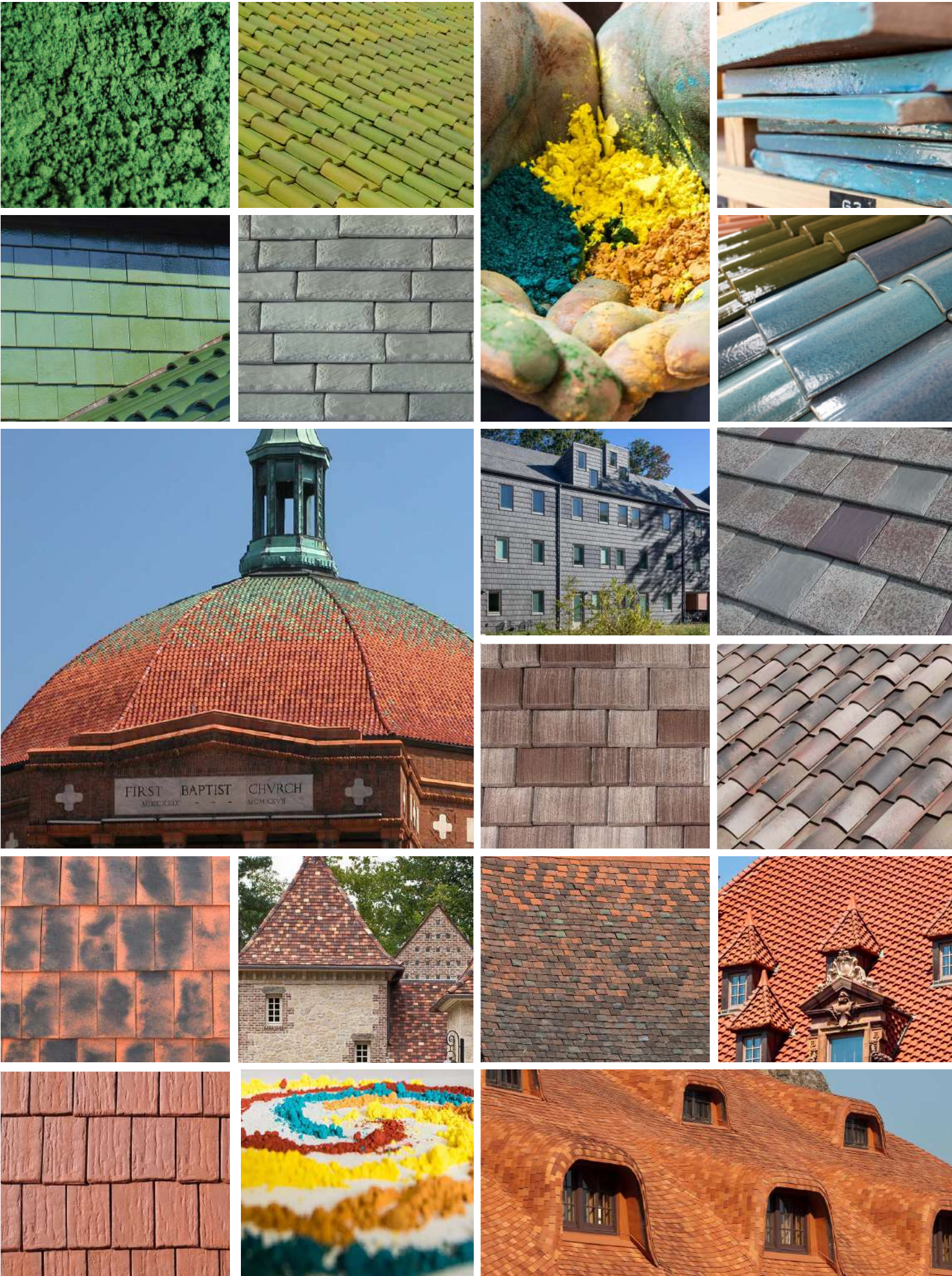
BLENDING COLORS

Color blending, wherein several different colors of terra cotta roof tile are mixed on a roof (such as red, brown, and gold), provides an opportunity to create a subtle or dramatic, one-of-a-kind design statement. The installer should take great care to ensure the color range is properly blended to the standard of the architect, designer, or homeowner. When working with blends pay careful attention to fittings. They can be produced entirely in one color or reflect the percentages of colors in the blend. As with all shipments of Ludowici tile, contractors must take care when loading the roof with a blend of colors so mix and percentages of color are uniformly maintained. Ludowici tiles do not come pre-blended.

Ludowici technical service specialists can assist on estimating the amounts of tile needed from design renderings. In addition, we can provide information on blends from previous orders on file for comparative purposes or artistic inspiration—like diamond or other geometric patterns. In addition, Ludowici design specialists highly recommend constructing a test patch of no less than (50) tiles as a final check prior to ordering.

COLOR GROUP DESCRIPTIONS

CLAY RED	The natural color shade range of the clay body which is inherent in the clay and firing process.
MATTE & TWO-SPRAY (MIST OR SPOT)	Matte colors are glaze colors with a low sheen, non-gloss matte appearance when compared to gloss glazes. “Two-spray”, “Mist”, and “Spot” describe the specific process used to achieve a distinctive look. The process of using (2) standard Ludowici colors in conjunction on a single tile is called a two-spray application. For a two-spray, a standard color is used as the base color and a standard color is used as a top spray that goes over the tile in either a mist or a spot application. By default the two-spray color is to be supplied in “Full Range (L>H)” by applying “Light (L)”, “Medium (M)”, and “Heavy (H)” amounts of top color. The full range of a color allows a range in the amount of base color tone that is allowed to show through. The range can be restricted to only allow for Light to Medium (L>M) or Medium to Heavy (M>H), supplying a lighter or darker end of that color's spectrum.
IMPRESSIONIST™	Our Impressionist™ Series colors use a unique process of creating a blend of colors by simultaneously applying several complementary matte glaze colors. This process uses a random myriad of variables, giving the finished product a rich distinctive appearance. Impressionist™ Series blends are only available on a limited number of tiles: Spanish, Mission, Morando and Shingle. The matching trim packages can be supplied for use with these patterns.
GLOSS	Glaze colors with a high sheen gloss appearance when compared to Matte glazes.
CUSTOM	Outside of our over 50 standard color glaze options, we have the ability to custom match any color. From gleaming glosses, to our patented multi-spray glazing techniques, to hand-crafted finish textures, Ludowici is the expert in creating custom colors and surface textures. Our ceramic engineers will work with you to develop the perfect color combination for your project.





Green Hues



EMPIRE GREEN



BRIGHT GREEN



VINTAGE GREEN



AGED COPPER



FOREST GREEN



FIELD GREEN
IMPRESSIONIST



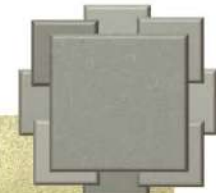
MOTTLED GREEN
PURPLE



BROOKVILLE GREEN



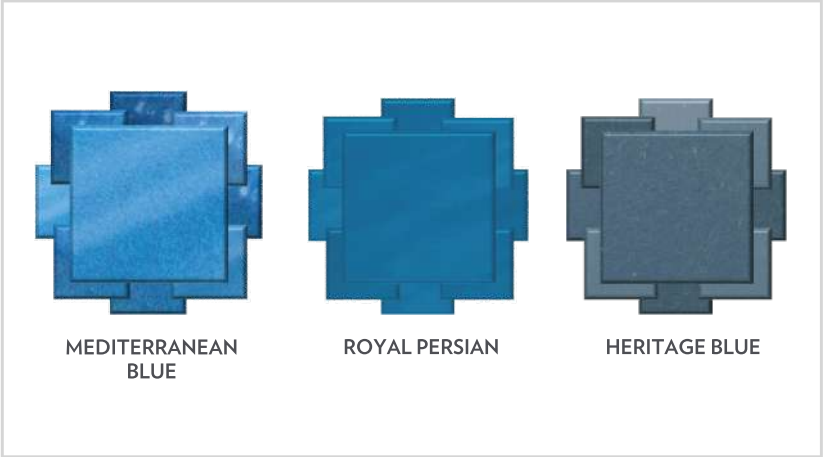
DARK GREEN



MONTPELIER GREEN

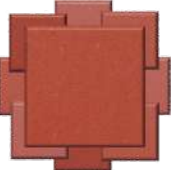
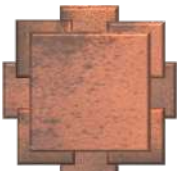


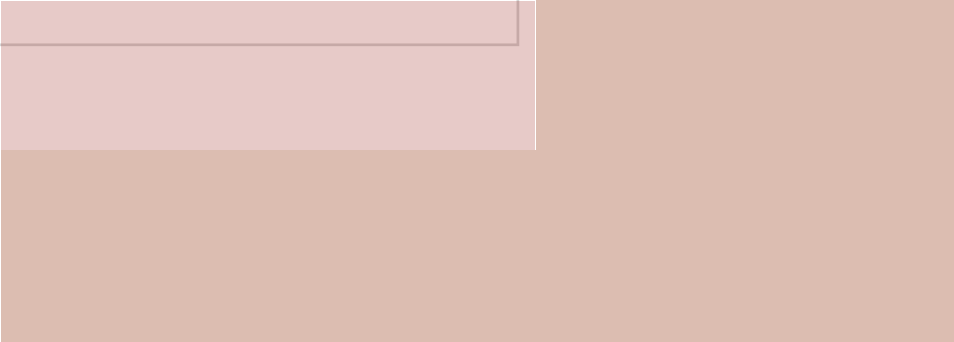
ANTIQUED
MONTPELIER GREEN





Red Hues 

		
CLAY RED	SUNSET RED	SLATE RED
		
BURGUNDY	SUMMER ROSE	SANTIAGO ROSE
		
PROCESS FLASH	EBONY MIST	SUNSET RED WITH EBONY MIST
		
DARK TERRA COTTA IMPRESSIONIST	ANZIANI IMPRESSIONIST	VECHIO IMPRESSIONIST



neutral hues





Brown hues



AGED CEDAR



SIENNA



WHITE CEDAR



WESTERN CEDAR



BEACH BROWN



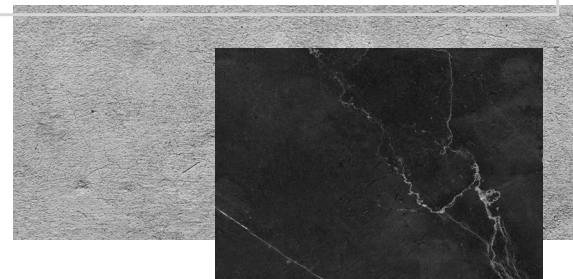
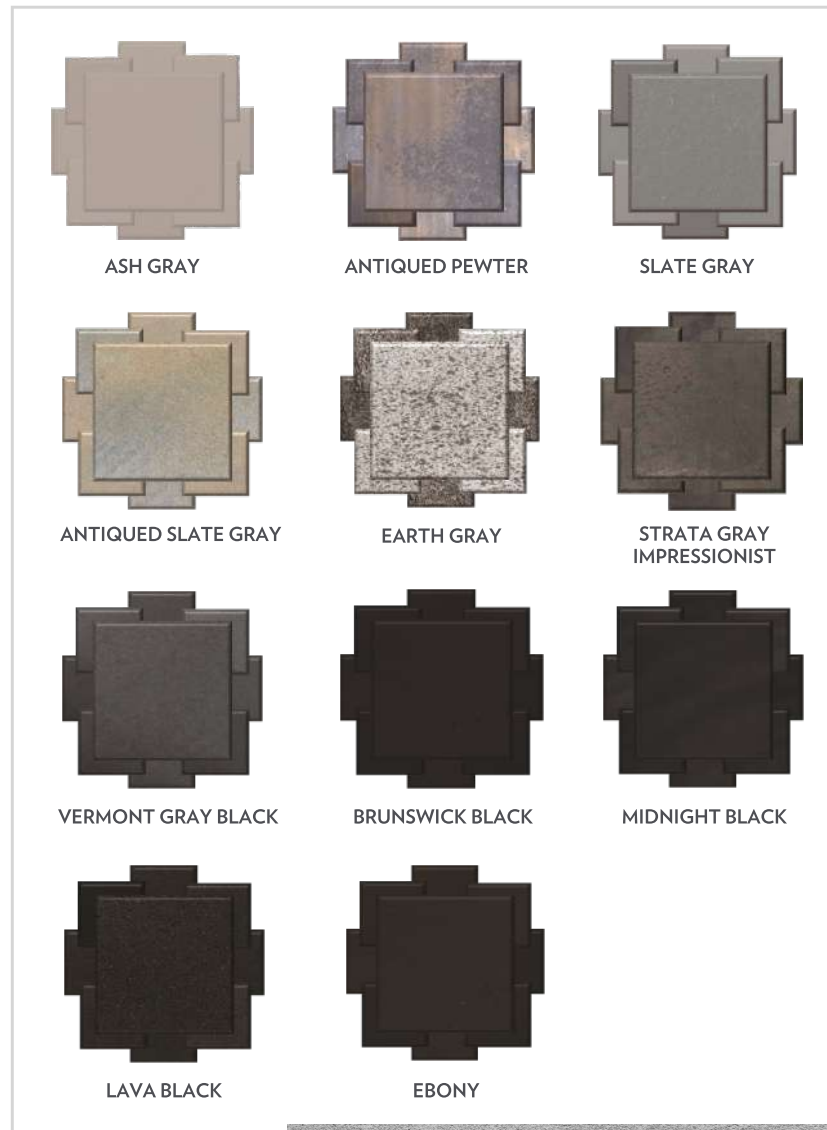
BRIAR BROWN



AGED OAK



gray hues





TERRA COTTA TEXTURES

At Ludowici our skilled craftsmen can recreate a number of finishes that authentically replicate the surface of age-old tiles. Custom textures can be applied to match historic applications or to meet your specific design aesthetic. For example, if you desire the worn, aged look of a years' old wooden roof, our skilled craftsmen can replicate an authentic aged appearance without the wait.

Textures reduce glare reflecting off the tile and allow the true color to show through. Many tile textures are applied by hand, allowing each tile to have a unique, handmade look and added depth.



SMOOTH



WEATHERED



FINE MACHINE SCORE



MEDIUM MACHINE SCORE



HAND ROUGHED



HAND SLUSHED



BATTERED & BRUSHED BUTT



BATTERED BUTT



WARPED



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