VENEER
WORLD

LANDMARK
CERAMICS

LANDMARK
CERAMICS

A new landmark in the ceramic industry

Landmark Ceramics is an American company, based in Tennessee that has set out to research, manufacture and sell top quality porcelain ceramics in North America, taking advantage of the proven experience of the Gruppo Concorde, an international leader in the sector. Technological innovation, market presence, attention to detail, the welfare of people and the environment, efficient service and a thorough product range make Landmark a new benchmark in the North American market for those who are looking for a reliable partner for any building and architecture project using US made top quality porcelain pavers.

LEARN MORE ABOUT

VENEER
WORLD

THE **FUTURE**
OF **TRADITION**

CONTEMPORARY
WALL DESIGN

Traditional Veneer is reimagined to preserve its beauty and authentic stone feel, while pushing boundaries of material excellence thanks to highly performing porcelain veneer. Refined, modern surfaces, impervious to extreme temperature and unpredictable weather, immune to the signs of time. The tradition has a new future with porcelain veneers.

PROJECT
FLOOR DESIGN
Charme Calacatta Gold 24"x48"
WALL DESIGN
Veneer World Pro Ledgestone Alpine Alaska - 6"x24"

VERSATILITY & CONTINUITY FOR **YOUR PROJECTS**

ANY SPACE

Thanks to highly performing materials and convenient installation methods, Landmark's Veneer World meets the demands of any environment, no matter the technical requirements.

ANY LOOK

One of the vastest and most versatile collections of wall surfaces, with a wide range of colors you can mix and match according to your needs.

ANY MOOD

Warm and welcoming or cool and modern, for homely residential spaces or edgy commercial settings. Cutting edge and squared shapes or natural and raft surfaces.

ANYWHERE

In & Out continuity is guaranteed by a line of products suitable for both indoor and outdoor spaces, which can easily be matched to other collections.

HIGHLY PERFORMING
TECHNICAL SURFACES

FIRE RESISTANT

Porcelain veneer doesn't burn, melt or give off toxic fumes when exposed to fire.

WATERPROOF

Porcelain veneer is very compact and impervious therefore doesn't absorb. With tile you'll never have to worry about water.

MOLD RESISTANT

Because it is fired at very high temperatures, porcelain veneer is nearly impenetrable. This keeps fine dirt particles from being lodged in its surface, making it resistant to mold and moss growth.

LIGHT WEIGHT APPROX 4 LBS/FT²

Porcelain veneer is a thin and therefore light weight material of approximately 4lbs/sqft. This means both less unnecessary pounds onto walls and cost saving in transportation and installation.

SCRATCH RESISTANT

Porcelain veneer is strong, hard and resistant to most type of scratches.

ZERO ALLERGENES

Porcelain veneer is both hard and impervious therefore inhospitable to dust mites, bacteria, fungi, mold and other irritants.

ZERO VOC & PVC

Porcelain veneer is completely PVC and VOC (volatile organic compound) free that means a healthier home for you.

DOESN'T BEND

Porcelain veneer is solid, hard and compact.

ZERO FORMALDEHYDE

Formaldehyde is known to lead to an increased incidence of asthma. Tile has zero formaldehyde.

PLASTIC FREE

Being composed of natural ingredients such as clays, quartz and feldspars and then fired up to 2500 F, porcelain veneer is 100% plastic free. This means a healthier living environment.

STAIN RESISTANT

Porcelain veneer is a very reliable, hygienic, and easy-to-clean material that will never be affected by any permanent type of stain.

FROST RESISTANT

No need to worry during the worst winter conditions of Snow, Ice and Salt. Porcelain veneer in fact is made by high density and homogeneous materials, making it resistant to frost, snow, salt and ice.

UV RESISTANT

Porcelain veneer is fired at 2500 degrees which allows it to resist to sun light and UV rays without being effected in any way, even when exposed to the worst solar heat conditions.

ACID RESISTANT

Porcelain veneer is Inert, hard and because of its imperviousness, it withstands even the most aggressive chemical detergents and acid substances.

VERY LONG SERVICE LIFE

Porcelain veneer when properly installed and maintained can last for decades.

ZERO SMOKE DEVELOPMENT

Porcelain veneer never gives off toxic fumes, even when exposed to fire.

ECO FRIENDLY & RECYCLABLE

Porcelain veneer is one of the most eco-friendly wall covering options available. From the production process to the installed materials, porcelain veneers can in fact be reused generation after generation. In addition, packaging and boxing are both 100% recyclable for a full respect of the environment.

COST SAVING OVER TIME

Thanks to its long service life and easy maintenance, porcelain veneer is very cost effective over time when compared to flooring products that need to be replaced more frequently.

TOTAL LOOK SOLUTIONS

Veneer World is the most comprehensive line of porcelain veneers for outdoor environments and indoor spaces, redefining the longstanding American tradition of stone-inspired walls and decors.
A vast selection of solid surfaces for total look projects, ensuring in & out continuity to match Landmark's endless portfolio of looks, colors and surfaces.

INSPIRED BY **AMERICAN STONES**

Inspired by genuine American stones of architectural and historic significance, Landmark's Veneer World faithfully replicates the rugged texture of nature for solid exteriors, while providing a sense of warmth and hospitality to elegant interiors.

STUNNING **OUTDOOR** ENVIRONMENTS

- Walls
- Porches
- Swimming Pools
- Fire-pits
- Outdoor Kitchens
- Retaining Walls
- Outdoor Facades

PROJECT
OUTDOOR FLOOR DESIGN
Frontier20 Thermal Bluestone Blue Select - 24"x36"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Blue Select - 6"x24"

ELEGANT **INDOOR** SETTINGS

- Living spaces
- Partitions
- Fireplaces
- Backsplashes
- Decorative Walls
- Spas

PROJECT

OUTDOOR FLOOR DESIGN
Frontier20 Passion Silver - 24"x24"
INDOOR FLOOR DESIGN
Made.In Passion Silver - 24"x48"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Full Color - 6"x24"

UNIQUE **RESIDENTIAL** ATMOSPHERE

Veneer World is American living: an opportunity to make your home unique and representative of your taste and personality, contributing to the creation of beautiful settings for everyday comfort.

PROJECT

FLOOR DESIGN
Vision Pearl - 24"x48"
WALL DESIGN
Veneer World Pro Ledgestone Bluestone Tumbled - 6"x24"

PRESTIGIOUS **COMMERCIAL** SPACES

Stunning, convenient surfaces designed to meet the demands of commercial locations. Make your business stand out thanks to creative combinations of veneers and pavers from Landmark's portfolio.

PROJECT

FLOOR DESIGN
Attitude Calm Brown - 24"x24"
WALL DESIGN
Veneer World Pro Ledgestone Ridge Beige - 6"x24"

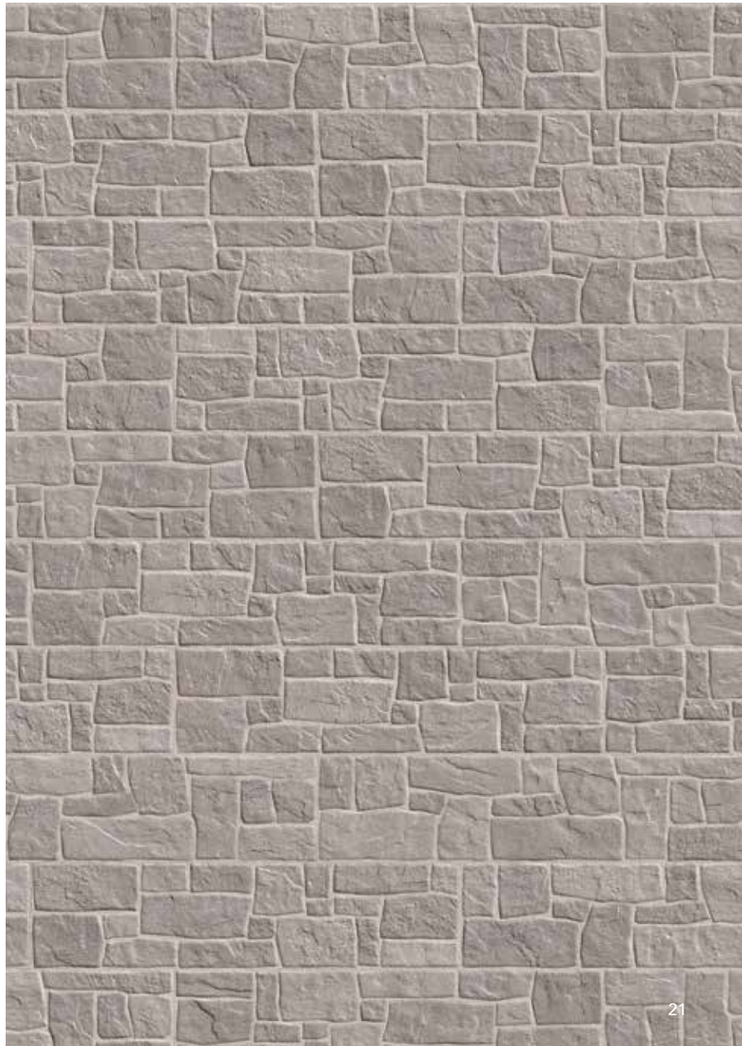
TWO **DISTINCTIVE SURFACES**

PRO
LEDGESTONE

An elegant finish, highly suitable for indoor spaces or smooth outdoor environments, combining contemporary design and refined taste. Pro ledgestone recreates the patterns of stonework using stacked ledge with ideally no joints thanks to perfect cuts and professional installation.

QUARRY
LEDGESTONE

Natural and distinctive texture, perfect for outdoor spaces and rustic indoor environments, inspired by rugged, authentic stones of the American tradition. Quarry ledgestone is characterized by almost preserving the actual size and shades of stones as they occur in nature.



PRO
LEDGESTONE

1

Linear patterns available in a variety of colors, to design refined surfaces for elegant settings. Each piece recreates the professionally assembled stacked ledgestone in a monolithic rectified porcelain veneer. Multiple and creatively variegated patterns assure a final natural effect, perfect for every decorative wall: both indoor and outdoor, for commercial as well as residential applications.

COLLECTIONS

1.1 Bluestone

1.2 Alpine

1.3 Ridge

1.4 Canyon

1.1
BLUESTONE

Bluestone finds inspiration in the most refined and used American stones sourced from Pennsylvania. The Bluestone is a famous stone, known in all north America, used in some of the most important architectures. A highly versatile selection available in the Full Color, Blue Select and Tumbled alternatives, able to either blend in or highlight contrast depending on the designated environment and desired look.

PROJECT
FLOOR DESIGN
Frontier20 Cobblestone Multisize Blue Select - 24"x24"
WALL DESIGN
Veneer World Pro Ledgestone Bluestone Blue Select - 6"x24"

BLUESTONE
Blue Select

PROJECT

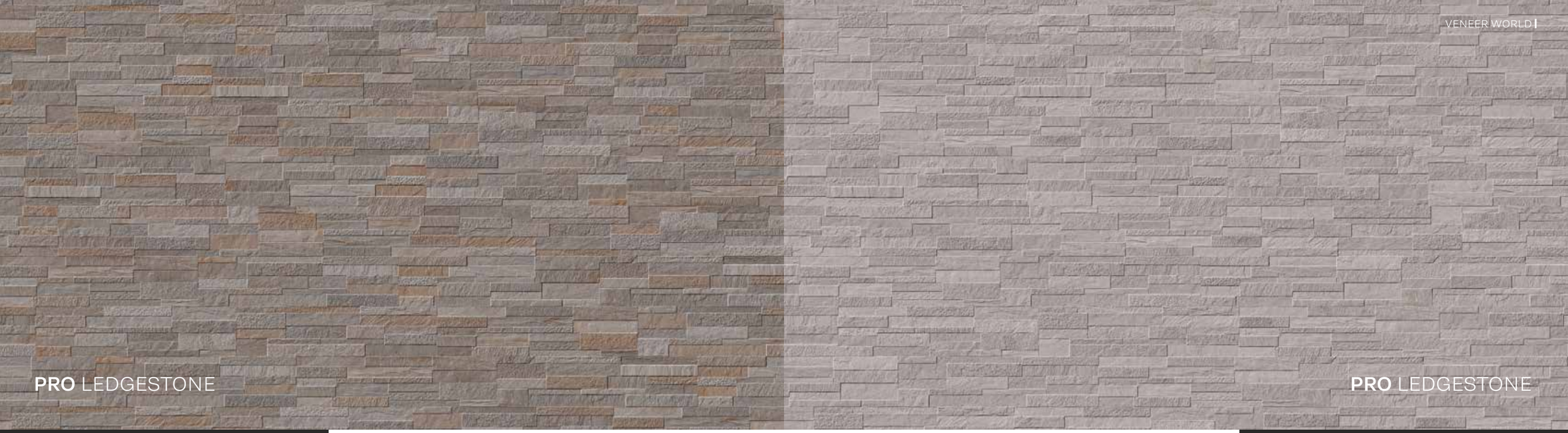
FLOOR DESIGN
Frontier20 Cobblestone Multisize Blue Select - 24"x24"
WALL DESIGN
Veneer World Pro Ledgestone Bluestone Blue Select - 6"x24"

BLUESTONE
Full Color

PROJECT
FLOOR DESIGN
True Contemporary White - 8"x40"
WALL DESIGN
Veneer World Pro Ledgestone Bluestone Full Color - 6"x24"

BLUESTONE
Tumbled

PROJECT
FLOOR DESIGN
Vision Pearl - 24"x48"
WALL DESIGN
Veneer World Pro Ledgestone Bluestone Tumbled - 6"x24"



PRO LEDGESTONE

BLUESTONE

FULL COLOR

6″x24″*
± 0.35″/ 9 mm

Stack Bond Pattern

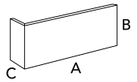
1/4 Offset Bond Pattern

1/3 Offset Bond Pattern

Color shading

V2

Corner**



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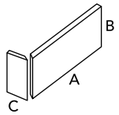
B = 6″
C = 2.75″

Smart Corner**



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PRO LEDGESTONE

BLUESTONE

BLUE SELECT

6″x24″*
± 0.35″/ 9 mm

Stack Bond Pattern

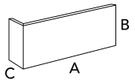
1/4 Offset Bond Pattern

1/3 Offset Bond Pattern

Color shading

V2

Corner**



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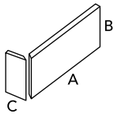

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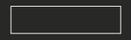
PRO LEDGESTONE

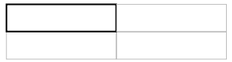
BLUESTONE

TUMBLED

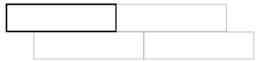


6"x24"*
0.35"/ 9 mm

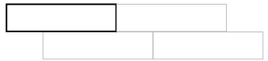
Stack Bond Pattern



1/4 Offset Bond Pattern



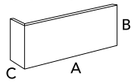
1/3 Offset Bond Pattern



Color shading

V2

Corner**



A = 20.5"
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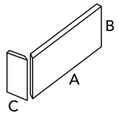
C = 2.75"

Smart Corner**



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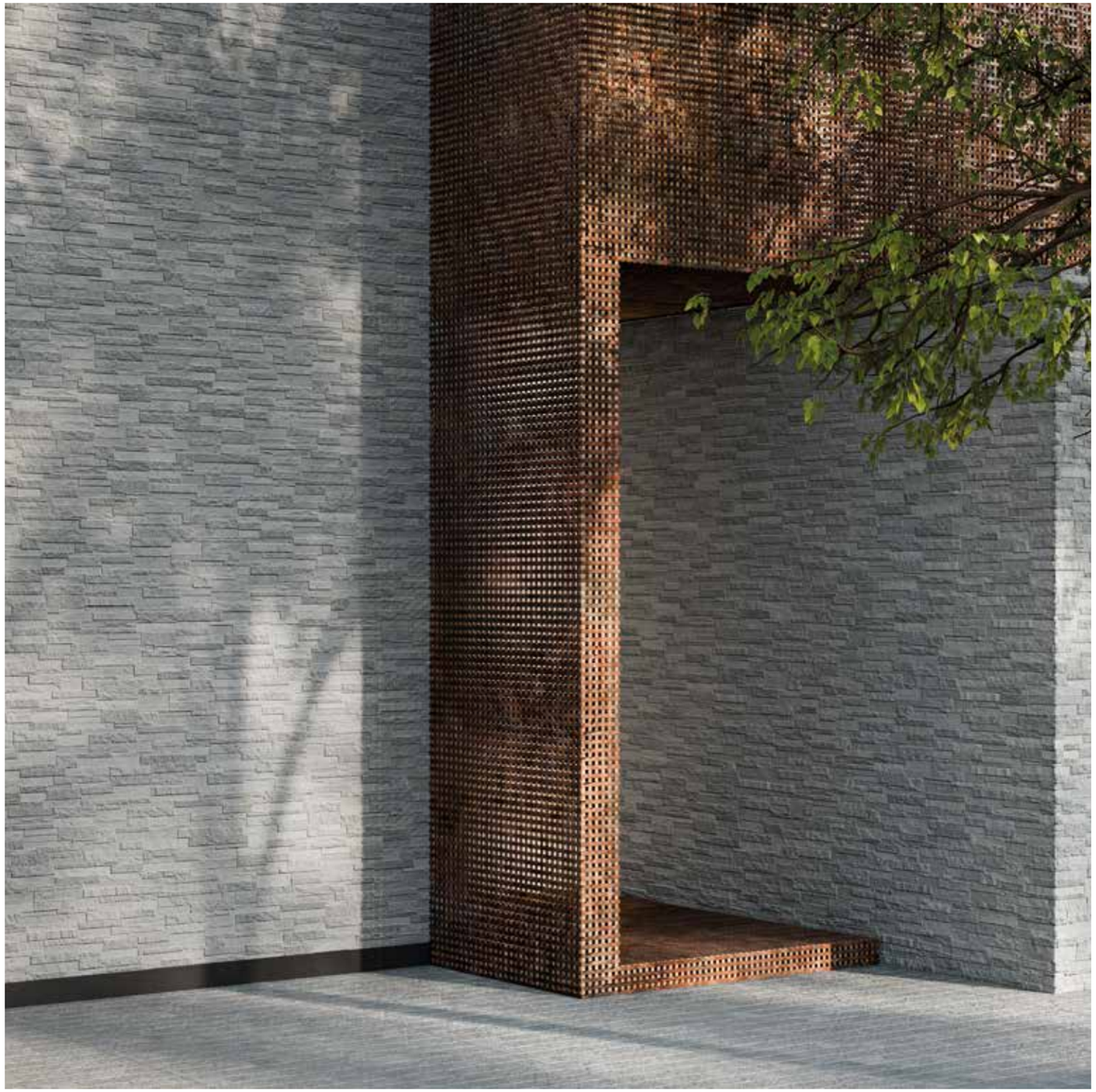


1.2
ALPINE

Delicate quartzite colors for subtle combinations within refined environments. Alpine offers designers the possibility to create clear, gentle looks with the most elegant shades on shade quartz materials.

PROJECT

FLOOR DESIGN
Charme Calacatta Gold - 24"x48"
Charme Graphite Dark - 24"x48"
WALL DESIGN
Veneer World Pro Ledgestone Alpine Alaska - 6"x24"

ALPINE
Alaska

PROJECT
WALL DESIGN
Veneer World Pro Ledgestone Alpine Alaska - 6"x24"

ALPINE
Desert

PROJECT
FLOOR DESIGN
Journey Modern Grey - 24"x48"
WALL DESIGN
Veneer World Pro Ledgestone Alpine Desert - 6"x24"
Veneer World Pro Ledgestone Canyon Rock - 6"x24"

PRO LEDGESTONE

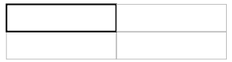
PRO LEDGESTONE

ALPINE

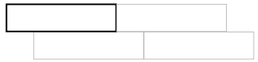
ALASKA

6″x24″*
± 0.35″/ 9 mm

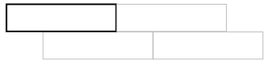
Stack Bond Pattern



1/4 Offset Bond Pattern



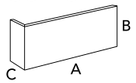
1/3 Offset Bond Pattern



Color shading

V2

Corner**



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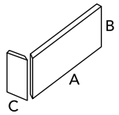

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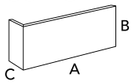
Corner**



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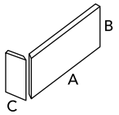

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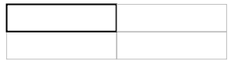
Stack Bond Pattern



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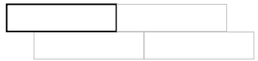

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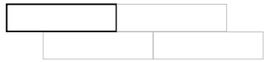


Color shading

V2

ALPINE

DESERT

6″x24″*
± 0.35″/ 9 mm

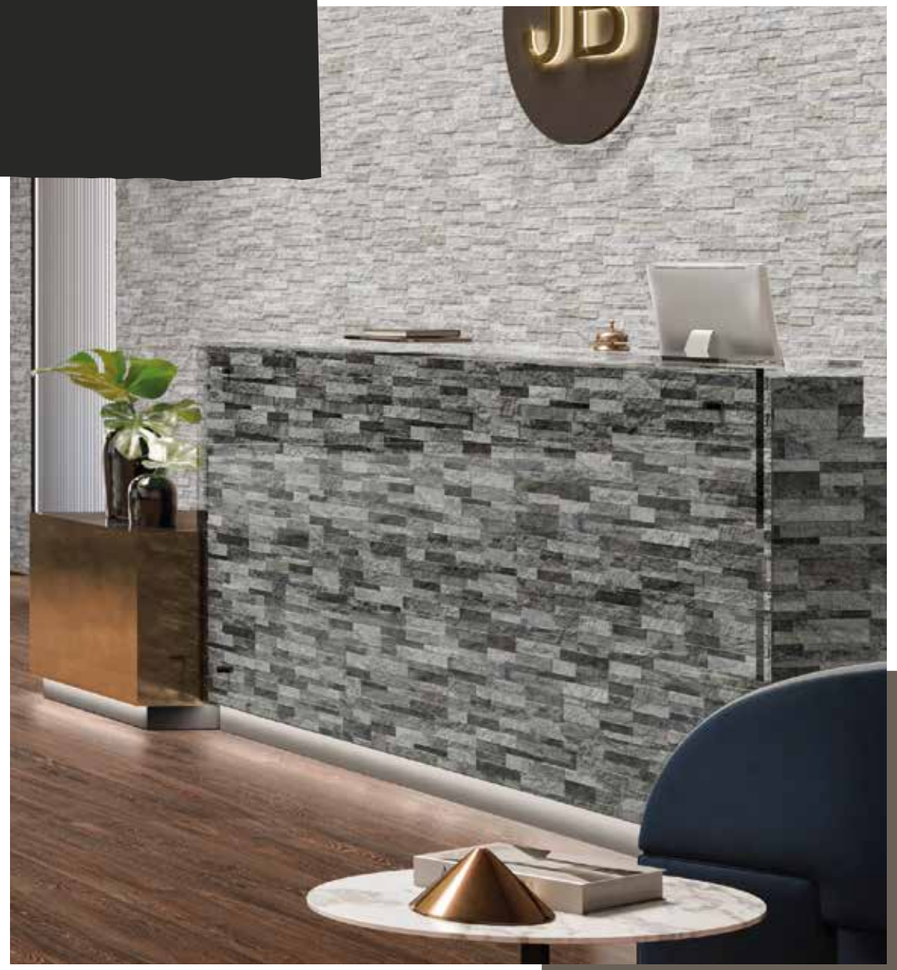
1.3
RIDGE

Strong shades and color variations with accentuated contrast are the deepest soul of the Ridge collection, which combines looks of rich quartzite with precious slate. Diverse hues intertwine to enrich the surface and provide a unique natural feel.

PROJECT
FLOOR DESIGN
Spirit Chic Walnut - 8"x40"
WALL DESIGN
Veneer World Pro Ledgestone Ridge White - 6"x24"
Veneer World Pro Ledgestone Ridge Grey - 6"x24"

RIDGE White

RIDGE Grey



PROJECT

FLOOR DESIGN
Spirit Chic Walnut - 8"x40"
WALL DESIGN
Veneer World Pro Ledgestone Ridge White - 6"x24"
Veneer World Pro Ledgestone Ridge Grey - 6"x24"

RIDGE
Beige

PROJECT
FLOOR DESIGN
Attitude Calm Brown - 24"x24"
WALL DESIGN
Veneer World Pro Ledgestone Ridge Beige - 6"x24"

RIDGE
Black

PROJECT

OUTDOOR FLOOR DESIGN
Made.In Freedom White Grip - 12"x24"
Frontier20 Freedom White - 24"x24"
WALL DESIGN
Veneer World Pro Ledgestone Ridge Black - 6"x24"

PRO LEDGESTONE

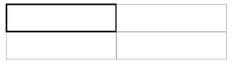
PRO LEDGESTONE

RIDGE

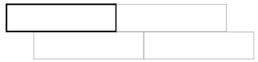
WHITE

6″x24″*
± 0.35″/ 9 mm

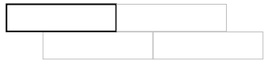
Stack Bond Pattern



1/4 Offset Bond Pattern



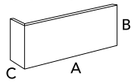
1/3 Offset Bond Pattern



Color shading

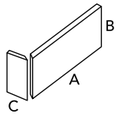
V2

Corner**



A = 20.5″
B = 6″
C = 2.75″

Smart Corner**



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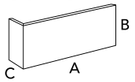
Corner**



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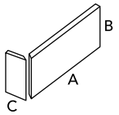
C = 2.75″

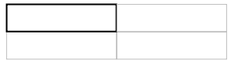
Smart Corner**



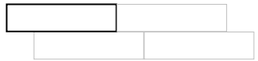
A = 20.5″
B = 6″
C = 2.75″

* Nominal Size: 5.8″x24″
** Nominal Size: 20.5″x5.8″x2.75″

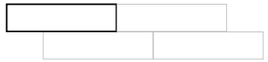
Stack Bond Pattern



1/4 Offset Bond Pattern



1/3 Offset Bond Pattern



Color shading

V2

RIDGE

BEIGE

6″x24″*
± 0.35″/ 9 mm

RIDGE

GREY

6"x24"*
0.35"/ 9 mm
$10%

Stack Bond Pattern

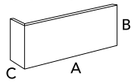
1/4 Offset Bond Pattern

1/3 Offset Bond Pattern

Color shading

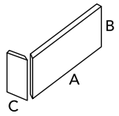
V2

Corner**



A = 20.5"
B = 6"
C = 2.75"

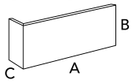
Smart Corner**



A = 20.5"
B = 6"
C = 2.75"

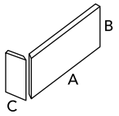
* Nominal Size: 5.8"x24"
** Nominal Size: 20.5"x5.8"x2.75"

Corner**



A = 20.5"
B = 6"
C = 2.75"

Smart Corner**



A = 20.5"
B = 6"
C = 2.75"

* Nominal Size: 5.8"x24"
** Nominal Size: 20.5"x5.8"x2.75"

Stack Bond Pattern

1/4 Offset Bond Pattern

1/3 Offset Bond Pattern

Color shading

V2

RIDGE

BLACK

6"x24"*
0.35"/ 9 mm
$10%

1.4
CANYON

Canyon is inspired by colorful American slates, ensuring a unique touch of western atmosphere for every space. A feel of natural, earthly matter, highlighted by the rich mix of tones brought together by an ensemble of dynamically textured surfaces typical of the split stones.

PROJECT
FLOOR DESIGN
Frontier20 Modern Grey - 24"x24"
WALL DESIGN
Veneer World Pro Ledgestone Canyon Summer - 6"x24"

CANYON
Summer

PROJECT
WALL DESIGN
Veneer World Pro Ledgestone Canyon Summer - 6"x24"

CANYON
Rock

PROJECT
WALL DESIGN
Veneer World Pro Ledgestone Canyon Rock - 6"x24"

PRO LEDGESTONE

CANYON

SUMMER

6″x24″*
± 0.35″/ 9 mm

Stack Bond Pattern

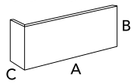
1/4 Offset Bond Pattern

1/3 Offset Bond Pattern

Color shading

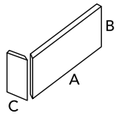
V2

Corner**



A = 20.5″
B = 6″
C = 2.75″

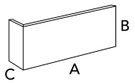
Smart Corner**



A = 20.5″
B = 6″
C = 2.75″

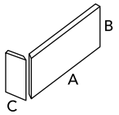
* Nominal Size: 5.8″x24″
** Nominal Size: 20.5″x5.8″x2.75″

Corner**



A = 20.5″
B = 6″
C = 2.75″

Smart Corner**



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B = 6″
C = 2.75″

* Nominal Size: 5.8″x24″
** Nominal Size: 20.5″x5.8″x2.75″

Stack Bond Pattern

1/4 Offset Bond Pattern

1/3 Offset Bond Pattern

Color shading

V2

CANYON

ROCK

6″x24″*
± 0.35″/ 9 mm

QUARRY
LEDGESTONE

2

Rugged texture and distinctive patterns to provide a strong character to outdoor environments and unique indoor spaces. Quarry is a collection characterized by large surfaces inspired by authentic, natural stones, enriched by diverse hues and vibrant shade variations.
A wide selection of looks for commercial and residential environments, indoor and outdoor settings, defined by high quality materials to ensure superior technical performances.

COLLECTIONS

2.1 Bluestone

2.2 River

2.1
BLUESTONE

Available in the Full Color, Blue Select and Tumbled variants, this versatile collection inspired by the Pennsylvania native Bluestone will either blend in or provide a pleasant contrast to any environment, depending on the specific needs of each project. A refined collection, suitable for both indoor and outdoor environments, reminiscent of great architectural projects all over north America, making use of the prestigious Bluestone.

PROJECT

FLOOR DESIGN
Frontier20 Modern Grey - 24"x24"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Blue Select - 6"x24"

BLUESTONE
Full Color

PROJECT

OUTDOOR FLOOR DESIGN
Frontier20 Passion Silver - 24"x24"

INDOOR FLOOR DESIGN
Made.In Passion Silver - 24"x48"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Full Color - 6"x24"

BLUESTONE
Full Color

BLUESTONE
Blue Select

PROJECT
FLOOR DESIGN
True Elegant Walnut - 8"x40"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Blue Select - 6"x24"

BLUESTONE
Blue Select

PROJECT
OUTDOOR FLOOR DESIGN
Frontier20 Thermal Bluestone Blue Select - 24"x36"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Blue Select - 6"x24"

BLUESTONE
Blue Select

PROJECT

OUTDOOR FLOOR DESIGN
Frontier20 Thermal Bluestone Blue Select - 24"x36"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Blue Select - 6"x24"

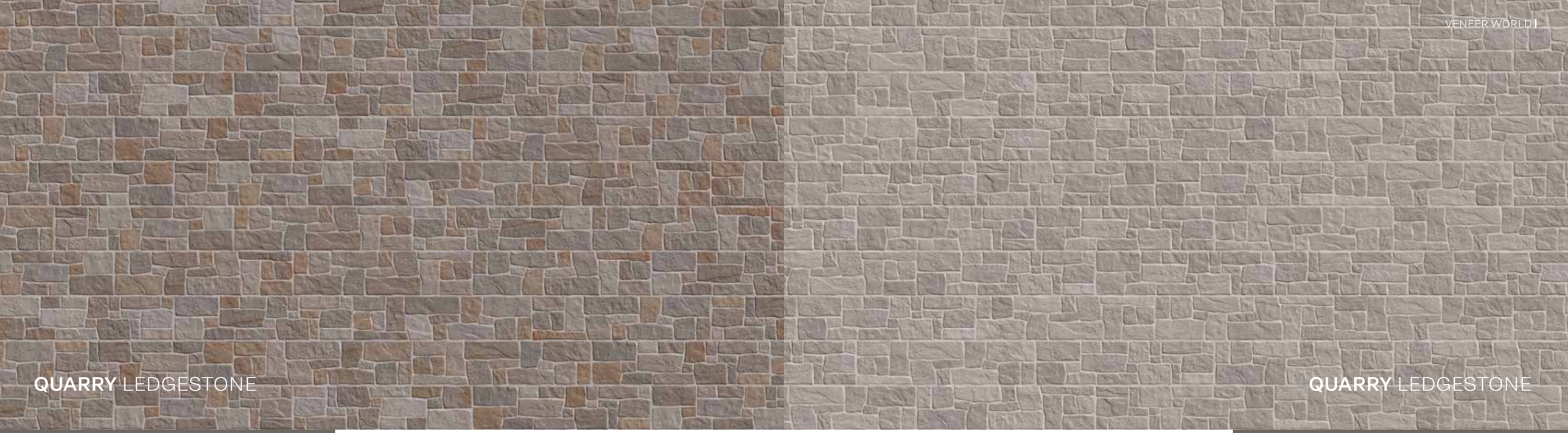
BLUESTONE
Tumbled+ Full Color

PROJECT
FLOOR DESIGN
Frontier20 Bluestone Full Color - 24"x48"
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Full Color - 6"x24"
Veneer World Quarry Ledgestone Bluestone Tumbled - 6"x24"

BLUESTONE
Full Color

PROJECT
FLOOR DESIGN
Frontier20 Bluestone Full Color - 24"x48""
WALL DESIGN
Veneer World Quarry Ledgestone Bluestone Full Color - 6"x24"
Veneer World Quarry Ledgestone Bluestone Tumbled - 6"x24"

BLUESTONE
Tumbled



QUARRY LEDGESTONE

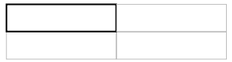
QUARRY LEDGESTONE

BLUESTONE

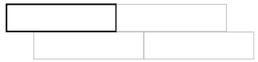
FULL COLOR

6″x24″*
± 0.35″/ 9 mm

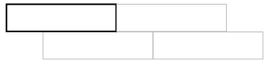
Stack Bond Pattern



1/4 Offset Bond Pattern



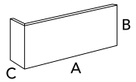
1/3 Offset Bond Pattern



Color shading

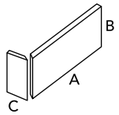
V2

Corner**



A = 20.5″
B = 6″
C = 2.75″

Smart Corner**



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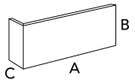
Corner**



A = 20.5″
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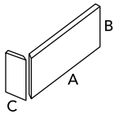
Smart Corner**



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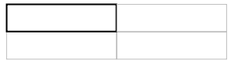
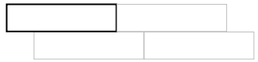
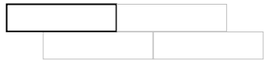
Stack Bond Pattern



1/4 Offset Bond Pattern



1/3 Offset Bond Pattern



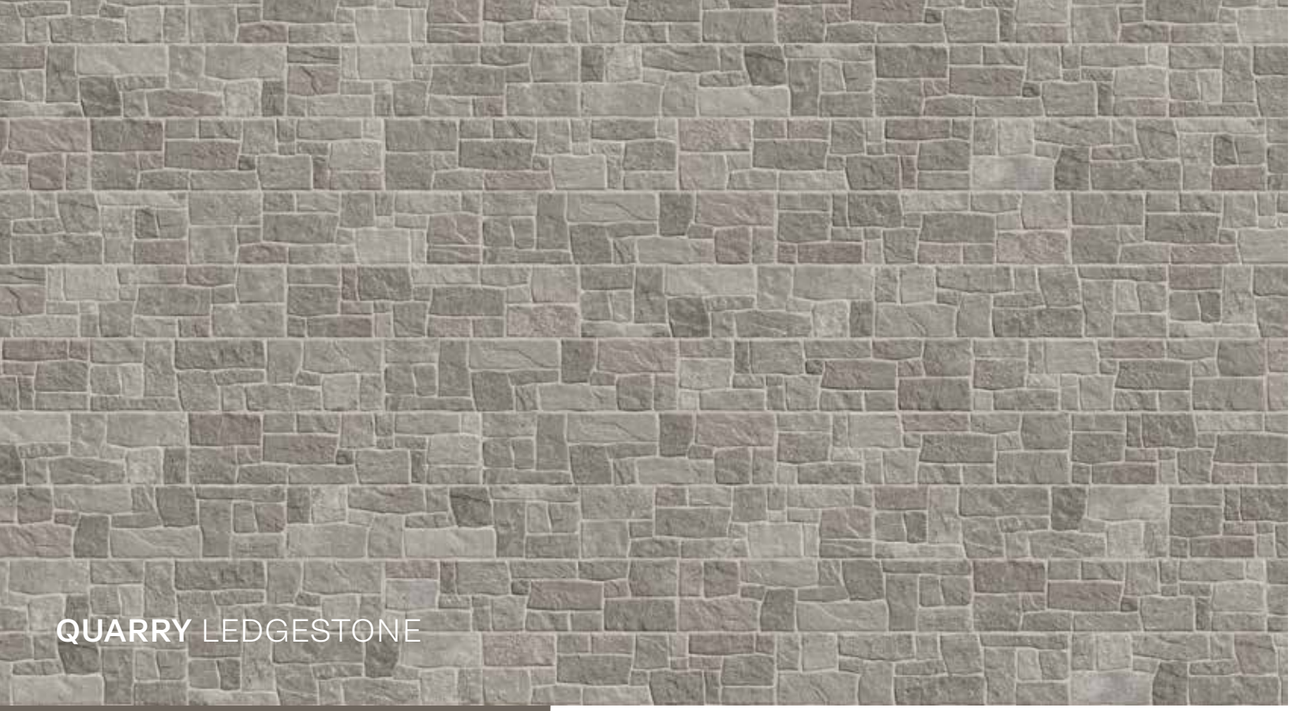
Color shading

V2

BLUESTONE

BLUE SELECT

6″x24″*
± 0.35″/ 9 mm



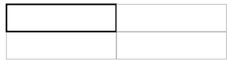
QUARRY LEDGESTONE

BLUESTONE

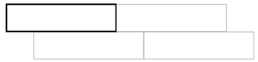
TUMBLED

6″x24″*
± 0.35″/ 9 mm

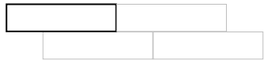
Stack Bond Pattern



1/4 Offset Bond Pattern



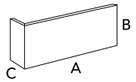
1/3 Offset Bond Pattern



Color shading

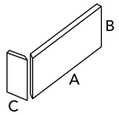
V2

Corner**



A = 20.5″
B = 6″
C = 2.75″

Smart Corner**



A = 20.5″
B = 6″
C = 2.75″

* **Nominal Size:** 5.8″x24″
** **Nominal Size:** 20.5″x5.8″x2.75″

QUARRY
LEDGESTONE

2.2
RIVER

River takes inspiration from a mix of multiple different stones, from quartzite to sandstone, passing by limestone. A wide color palette to provide maximum versatility and the liberty to mix and match surfaces and color with other Landmark collections.

PROJECT
OUTDOOR FLOOR DESIGN
Journey Modern Grey Grip - 12"x24"
WALL DESIGN
Veneer World Quarry Ledgestone River Dark - 6"x24"

RIVER
Dark

PROJECT

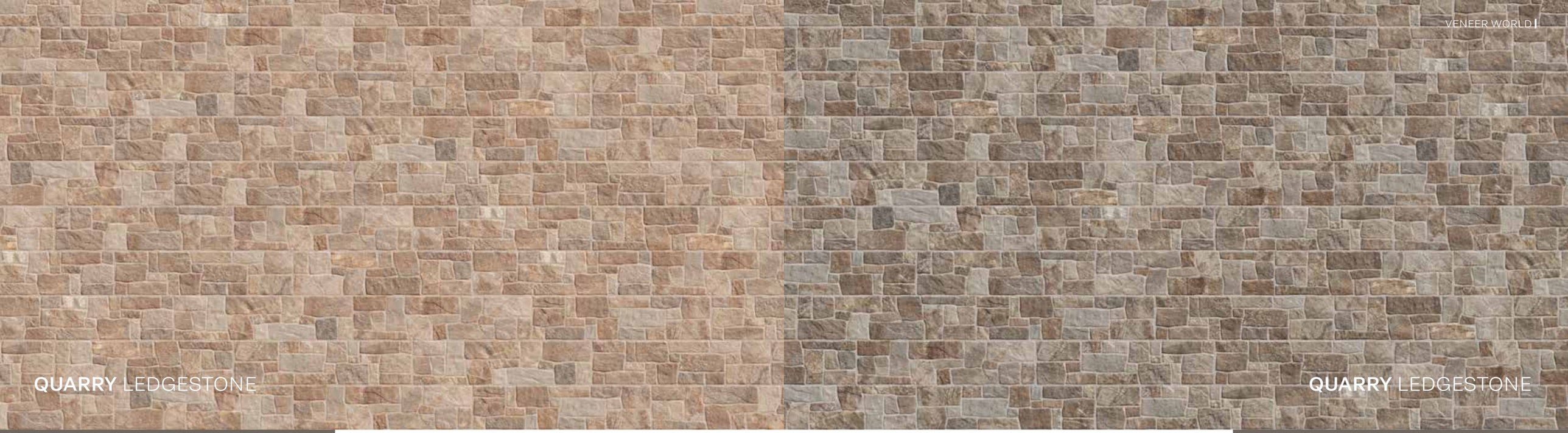
OUTDOOR FLOOR DESIGN
Journey Modern Grey Grip - 12"x24"
WALL DESIGN
Veneer World Quarry Ledgestone River Dark - 6"x24"

RIVER
Smoke

PROJECT
OUTDOOR FLOOR DESIGN
Frontier20 Freedom White - 24"x24"
WALL DESIGN
Veneer World Quarry Ledgestone River Smoke - 6"x24"

RIVER
Sand

PROJECT
FLOOR DESIGN
Vision Dove - 24"x48"
WALL DESIGN
Veneer World Quarry Ledgestone River Sand - 6"x24"



QUARRY LEDGESTONE

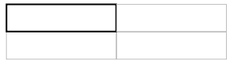
QUARRY LEDGESTONE

RIVER

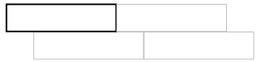
SAND

6″x24″*
± 0.35″/ 9 mm

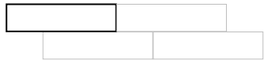
Stack Bond Pattern



1/4 Offset Bond Pattern



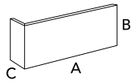
1/3 Offset Bond Pattern



Color shading

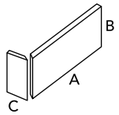
V2

Corner**



A = 20.5″
B = 6″
C = 2.75″

Smart Corner**



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C = 2.75″

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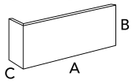
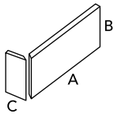
** Nominal Size: 20.5″x5.8″x2.75″

Corner**



A = 20.5″
B = 6″
C = 2.75″

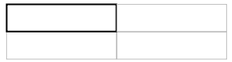
Smart Corner**



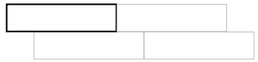
A = 20.5″
B = 6″
C = 2.75″

* Nominal Size: 5.8″x24″
** Nominal Size: 20.5″x5.8″x2.75″

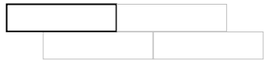
Stack Bond Pattern



1/4 Offset Bond Pattern



1/3 Offset Bond Pattern



Color shading

V2

RIVER

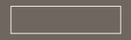
SMOKE

6″x24″*
± 0.35″/ 9 mm

QUARRY LEDGESTONE

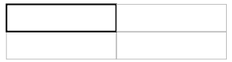
RIVER

DARK

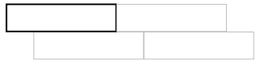


6"x24"*
± 0.35"/ 9 mm

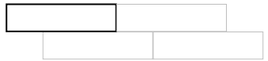
Stack Bond Pattern



1/4 Offset Bond Pattern



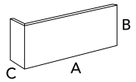
1/3 Offset Bond Pattern



Color shading

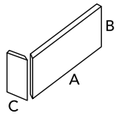
V2

Corner**



A = 20.5"
B = 6"
C = 2.75"

Smart Corner**



A = 20.5"
B = 6"
C = 2.75"

* **Nominal Size:** 5.8"x24"
** **Nominal Size:** 20.5"x5.8"x2.75"

PORCELAIN VENEERS **INSTALLATION INSTRUCTIONS**

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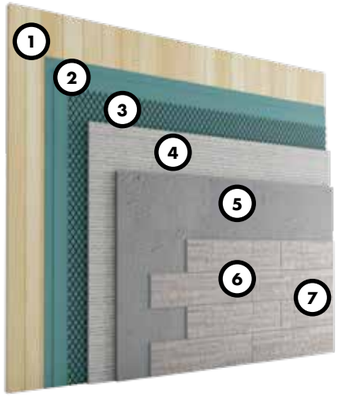
INSTALLATION SYSTEMS

Landmark's porcelain veneers can be installed on the most utilized backup systems, such as wood and steel framing, cement or concrete masonry unit (CMU) and rigid insulation foam. Although this guide focuses on the installation of Landmark's porcelain veneers on these most traditional backup systems, any properly designed and prepared backup system could be used to receive Landmark's porcelain veneers. Please verify with your architect, structural and civil engineer that the backup system and installation methods comply with Federal, State and Local building codes as well as other rules and regulations that might apply to the project by the law and common sense.

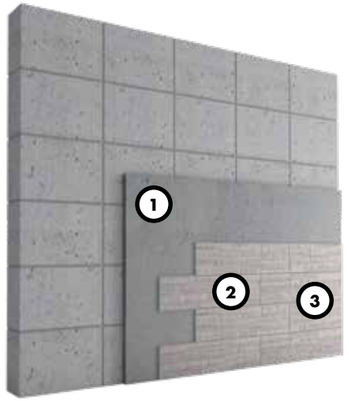
The most traditional backup systems are:

WOOD FRAME



1. Sheating
2. Two layers of Water Resistive Barrier (WRB)
3. Metal lath
4. Scratch coat
5. Mortar setting bed
6. Landmark's porcelain veneers
7. Grout joint

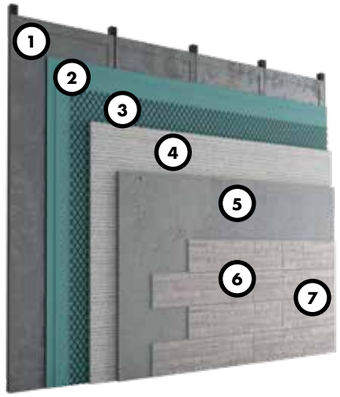
CONCRETE MASONRY UNIT



1. Mortar applied directly to untreated unpainted masonry, concrete or stucco
2. Landmark's porcelain veneers
3. Grout joints

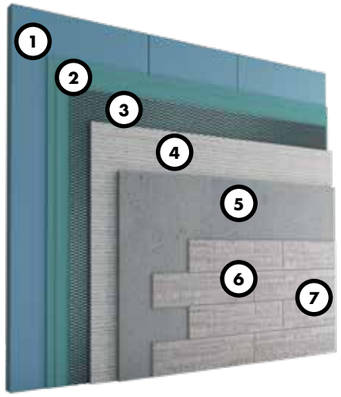
Note
Concrete Masonry Unit must be free from paint, sealer and dirt. Dirty, painted, sealed and smooth surfaces/walls will require additional preparation to address these condition.

METAL FRAME



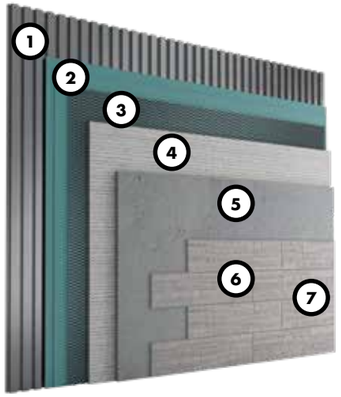
1. Sheating
2. Two layers of water resistive barrier (WRB)
3. Metal lath
4. Scratch coat
5. Mortar setting bed
6. Landmark's porcelain veneers
7. Grout joint

RIGID FOAM INSULATION



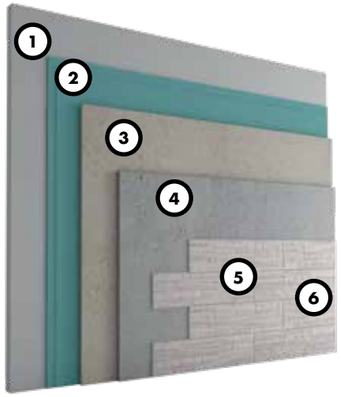
1. Rigid foam insulation
2. Two layers of water resisitve barrier (WRB)
3. Galvanized metal lath
4. Scratch coat
5. Mortar setting bed
6. Landmark's porcelain veneers
7. Grout joint

METAL BUILDING



1. Sheating
2. Two layers of water resistive barrier (WRB)
3. Galvanized metal lath
4. Scratch coat
5. Mortar setting bed
6. Landmark's porcelain veneers
7. Grout joint

CEMENT BOARD



1. Sheating
2. Two layers of water resistent barrier (WRB)
3. Cement board
4. Mortar setting bed
5. Landmark's porcelain veneers
6. Grout joint

STEP 1
PREPARING THE SURFACE

Verify that the surface on which Landmark's porcelain veneers will be installed is solid and free of any materials that would prevent the porcelain veneer from bonding. Check also that the backup system is capable of supporting the weight of Landmark's porcelain veneers.

The surfaces on which Landmark's porcelain veneer will be applied must have a rough texture to ensure a good mortar bond. If necessary, attaching a lath and applying a scratch coat can bring the surface to a desirable level of roughness. Please note that, whenever a lath is utilized, a scratch coat is needed.

A scratch coat may not be needed over Cement Masonry Unit (CMU) and cement board. If the lath is installed, apply a ½ inch thick layer of mortar ensuring that the mortar completely covers the lath. Scratch the mortar horizontally to create a scratch coat that will help the porcelain veneer to adhere, not only chemically but also mechanically, to the surface.

Before starting the installation, ensure that the Water-Resistant Barrier (WRB) and flashing are correctly installed. It is worth noting that different elements and materials within a structure can react differently in response to temperature and moisture fluctuations or to different loads pressure. In cases where differential movements are expected, such as at the transition between a framed backup system to a concrete masonry unit system, movement joints (control joints and expansion joints) may be needed.

Movement joints must be specified by the architect or the engineer according to ASTM C 1063 control joints requirements. Do not cover the movement joints with Landmark's porcelain veneers as this might lead to cracking.

STEP 2
ESTIMATING THE PORCELAIN VENEERS REQUIRED

Determine the amount of Landmark's porcelain veneer products needed by calculating the area to be covered. Multiply the length by the height, the result will be the area of the surface to be covered. Subtract square footage for any space that will not be covered such as windows and doors. Measure the height of the corner walls and compute the linear feet of corners to determine the amount of corner pieces needed. One linear foot of corner pieces covers approximately 2 square feet of surface. Subtract the area covered by the linear feet of corner pieces from the area required. It is suggested to order extra porcelain veneers to allow cutting, trimming and waste.

FORMULAS
Wall Area = Length × Height
Windows and doors areas = Windows and doors Width × Windows and doors Height
Wall Area Covered by Corners = Lineal Feet of Corners Required × 2
Square feet required = Wall Area – Windows and doors Area – Wall Area Covered by Corners
It is recommended to request extra square feet.

STEP 3
PLANNING THE LAYOUT

It is recommended, in order to maintain a natural look, to follow a stack bond pattern or a ¼ offset bond pattern or a 1/3 offset bond pattern when installing Landmark's porcelain veneers and keep the joints as small as possible.
Before starting the installation, lay out several pieces on a flat surface to allow proper selection from a variety of sizes, shapes and colors.

STACK BOND PATTERN

1/4 OFFSET BOND PATTERN

1/3 OFFSET BOND PATTERN

In case of a dry stacked installation, it is recommended that all interstice gaps between Landmark's porcelain veneers are properly sealed with a specific grout for porcelain (please always refer to the grout manufacturer for further information). Also, it is recommended to comply with the building codes and federal and regional rules and regulations.

The sealing for interstice gaps it is fundamental to prevent or reduce water infiltration that may lead to the cracking and falling of the unit. Failing to do this may lead to major injuries.

STEP 4
ENSURING A LEVELLED INSTALLATION

The first line of porcelain veneers will determine the levelness of each line above or underneath. To ensure that the porcelain veneers are installed straight use a chalk line: position the chalk line from side to side of the wall at a distance equal to the height of the porcelain veneer plus the desired grout spaces.

Check with the level that you have a straight horizontal line and snap the chalk line. Decide in advance whether you prefer to end up with partial porcelain veneers at the top or at the bottom of the wall.

It is recommended to start the installation from a corner or from the edge of the wall.

STEP 5
CHOOSING THE CORRECT MORTAR

Choosing the proper mortar is critical to ensure that Landmark's porcelain veneers do not come off and that the bonding agent will not comprise the other essential functions for an exterior coating system (soundproofing, steam barrier, resistance to water, etc.).

For this reason, it is crucial to contact one of the mortar manufacturing companies (Laticrete or Mapei to mention a couple) to find out what solutions they might have available (and consequently guarantees).

Between all the products suggested from the mortar manufacturers for the bonding of the material, it is critical to choose a product that is suited for porcelain tiles for exterior application.

In some cases, the construction norms provide constrains, mandatory precautions and/or limitations on the bonding of construction materials (whether they are tiles, natural stones, manufactured stones, thin brick or other masonry product). Moreover, it is important to remember that the Building Code in the United States poses, for commercial use, a limit on the maximum dimension and weight for the glue bonding (without the assistance of mechanical hooks) of tiles, stone slabs or other materials used for exterior wall covering.

Because of this, it is important that the contractor verifies upfront these constraints keeping in consideration the characteristics of the building and its location.

In any case it is very important to contact the representative of the company manufacturing the mortar up-front to verify that the solution identified by reading the literature is correct, keeping in mind:

- The type of wall that the user is trying to cover (how it is made and what characteristics it presents)
- The type of material that the user wants to utilize (porcelain in this particular case)

ATTENTION
When contacting the representative of the company manufacturing the mortar, it is important to communicate him or her the thickness, dimension and weight of every piece of porcelain material to be installed (the information is available in the Landmark Ceramic's price list or can be requested directly to Landmark). This way, the glue representative can suggest the best bonding material to the contractor/customer keeping in consideration the characteristics of the material to be installed.

STEP 6
APPLYING LANDMARK'S PORCELAIN VENEER TO THE SURFACE

After the scratch coat mortar, if present, has cured sufficiently, dampen the wall before starting with the application. No residue of standing water should be left.

Note: Landmark's porcelain veneer applications should be protected from temperature below 40°F during and immediately following the installation. The use of anti-freeze admixtures to lower the freezing point of the mortar is not recommended.

Spread a layer of mortar (above the scratch coat if present) on an area about 3 square feet to create the thinset. Use the notched trowel at a 45-degree angle to create an even ridged bed. Then, the porcelain veneer should be firmly pushed into the setting bed mortar, wiggling it a bit as you push to help it adhere.

Mortar should be slightly weeping out from the entire perimeter of each piece after they are installed. Clean excess mortar off of surrounding joints during the installation process.
With the right mortar mix, moisture content and scratch coat preparation, the porcelain veneer will be stable within a few seconds of the setting movement process.

Continue to spread mortar and lay the porcelain veneers onto the rest of the wall in sections, checking with a level that each line of porcelain veneers is leveled. Place spacers between porcelain veneers to ensure even spacing. Tap each porcelain veneer with the mallet to firmly set them.

In exterior application, to guarantee even a more bonding of the unit to the surface, it is possible to back butter the Landmark's porcelain veneer. The back-buttering process consists of covering the entire back, not only the perimeter, of the porcelain veneer with mortar using the flat-end of the trowel. This will ensure a proper adhesion of the porcelain veneer to the surface. Note that, since Landmark' porcelain veneers are non-absorbent material, it is not necessary to wet the piece before the back-buttering process.

It is critical to verify, when creating the mortar bed and back buttering the unit that the mortar is spread evenly on the surfaces to prevent the creation of air bubbles and water infiltration that may lead to cracking.

Once all the porcelain veneers are lay down and the wall is covered let dry the wall for 24 hours.

STEP 7
GROUTING THE JOINTS

Once the wall is cured, grout the joints. It is critical to use an exterior-grade grout and mixing it according to the manufacturer instruction.

Use a grout float at a 45-degree angle to spread the grout over the wall. After the grout is dried, wipe the excess grout with a sponge.

CLEANING AFTER INSTALLATION

After grouting the joints, It is important to remove the excess grout with a sponge and clear water. After 12/48 hours, the grout in the joints will have "set up"/hardened significantly. There will be a noticeable residual "haze". Typically, a diluted acid cleaner ideal for removing "Grout Haze", combined with a soft scrubbing pad will remove the majority if not all the "Haze".

Change your acid/water solution frequently for best results. It is also recommended to keep a bucket of clean water to remove the acid/water solution. It is recommended to keep and use clean dry towels to help remove as much residual water and keep the wall as dry as possible.

Please refer to the cleaning chemical company's suggested methods and dilution rates. For areas with excess grout or grout that becomes adhered to the face of the porcelain veneer, further cleaning with an Acid/ Water Solution may be necessary.

Please refer to the Cleaning Chemical Company's instructions as not all acids or chemicals are the same. The excess grout residue must be removed so that it does not dry and stick on the surface. It is necessary to change the cleaning water frequently and rinse well. If such cleaning procedure is not carried out, or if such cleaning is carried out too late, the grout residue could create an absorbent film, which holds dirt, making the surface difficult to clean: in this case, Landmark Ceramics will not be liable for any damage caused to the surface.

ORDINARY CLEANING

Ordinary maintenance must be carried out using specialized detergents to remove stains but these detergents must not leave a wax, film or membrane residue. Rinsing well with plenty of clean water is a fundamental part of the cleaning procedure, therefore we advise against the use of products which state that they "do not need rinsing".

RECOMMENDED USE

Veneer World is recommended for indoor and outdoor walls, in commercial and residential application. Landmark recommends an offset no greater than 30%, if a staggered pattern is required for tiles of 20" inches or longer. Landmark recommends the use of leveler for a proper installation.

CARE AND MAINTENANCE

Do not apply any wax or sealer to the product after installation. Regular cleaning is the best way to keep Veneer World tiles looking good.
Use clean, hot water (add household cleaner for more aggressive cleaning). Rinse thoroughly and dry with a soft cloth to prevent water spots.
Please visit **outdoor.landmarkceramics.com**. For further information regarding the care and maintenance of Landmark products.

WARRANTY

Landmark guarantees that its products will meet or exceed the performance specifications set out in ANSI A137.1- 2012 and in the performance specifications section of the Landmark general catalog. For more information, please visit our website at **outdoor.landmarkceramics.com**.

PHYSICAL PROPERTIES	TEST ASTM	NORTH AMERICAN STANDARD A137.1*	RESULTS
Water absorption *	C373	≤ 0.5%	COMPLY WITH ANSI A137.1
Resistance to freeze/thaw cycling *	C1026	As reported	RESISTANT
Warpage (edge)	C485	Warpage ± 0.4% or ± 0.05 in	COMPLY WITH ANSI A137.1
Warpage (diagonal)	C485	Warpage ± 0.4% or ± 0.07 in	COMPLY WITH ANSI A137.1
Wedging	C502	± 0.25% or ± 0.03 in	COMPLY WITH ANSI A137.1
Chemical resistance	C650	As reported	UNAFFECTED
Breaking strength	C648	250 lbf or greater	COMPLY WITH ANSI A137.1
Thickness	C499	Range: 0.04 in	COMPLY WITH ANSI A137.1

* Average values referred to our production and related to the matt finish of the product.
- Be sure to use tiles belonging to the same caliber.
- Test results are available on request.
- The information provided can be subject to change. Please refer to **outdoor.landmarkceramics.com** for the latest, most accurate and up-to-date information.

CERTIFIED PORCELAIN TILE 0.5% or less water absorption · VOC FREE · PROUDLY MADE IN THE USA · U.S. GREEN BUILDING COUNCIL MEMBER · Member of TCNA · 10% SIGNIFICANT PRECONSUMER RECYCLED MATERIAL · RIDGE - GREY · RIDGE - BLACK

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LANDMARK
CERAMICS

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