



DEFEND™

POWERED BY
MICROBAN®

PROTECT AGAINST THE INVISIBLE







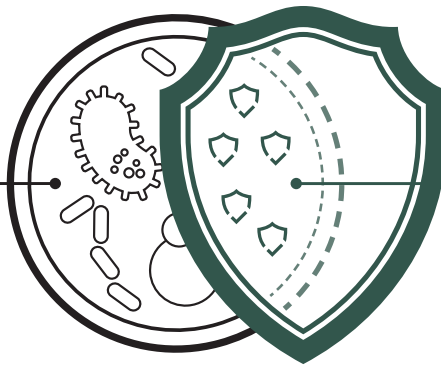
Photo features Calligo™ – Stone Look Almond 15x30 on the floor and walls with 1x6 mosaic in the niche.

WHAT IS MICROBAN® TECHNOLOGY

Antimicrobial product protection has revolutionized product cleanliness, becoming a key aid in the fight against product-damaging microbes.

UNPROTECTED SURFACE

(Bacteria, Mold & Mildew)



PROTECTED WITH

MICROBAN®

From walls and worktops in kitchens to flooring and sinks in bathrooms, frequently utilized tile surfaces are often subjected to moist and humid conditions. This makes them prone to the growth of degrading microbes such as bacteria, mold, and mildew.

Scrubbing with disinfectant cleaners is an essential way to temporarily reduce the presence of microbes on ceramic surfaces. However, research has shown that cleaning products have a limited residual effect, meaning bacteria begin to double in number every twenty minutes soon after a surface has been cleaned.

Unlike disinfectant sprays, built-in antimicrobial ceramic technologies will actively control microbial growth on ceramic surfaces and work to extend the effectiveness of regular cleaning routines by reducing the background bioburden.

HOW DOES IT WORK?

FULL INTEGRATION

The technology is integrated into the ceramic glaze during the manufacturing process. It becomes part of the molecular structure of the product and will not wash off or wear away.

01

MICROBAN® ANTIMICROBIAL PRODUCT PROTECTION WORKS AT A CELLULAR LEVEL TO CONTINUALLY DISRUPT THE GROWTH AND REPRODUCTION OF MICROORGANISMS THAT CONTAMINATE A TREATED SURFACE. THE TECHNOLOGY OPERATES A MULTI-MODAL ATTACK BY DAMAGING THE PROTEIN, CELL MEMBRANE, DNA, AND INTERNAL SYSTEMS OF A MICROBE, PREVENTING IT FROM BEING ABLE TO TAKE IN NUTRIENTS OR REPRODUCE.

Once infused into a product, antimicrobial technology will start to work as soon as a microorganism comes into contact with the treated surface.

- **Protein Damage:** antimicrobial agents attack the proteins of a microbe, causing failure of essential functions
- **Cell Disruption:** antimicrobial agents damage the membrane of a microbe, leading to the loss of critical nutrients
- **Oxidative Damage:** antimicrobial agents cause increased oxygen levels, leading to significant damage to the internal systems of a microbe
- **DNA Disruption:** antimicrobial agents interfere with the genetics of a microbe, ultimately preventing its growth and reproduction

By creating an inhospitable environment for microorganisms like bacteria, mold, and mildew, built-in antimicrobials protect products from staining, bad odors, and premature degradation.

SURFACE CONTAMINATION

The treated ceramic surface becomes contaminated with microbes as a result of human contact, environmental conditions and/or cleaning lapses.

02

TECHNOLOGY AT WORK

The technology penetrates the cell wall of each microbe and inhibits their ability to grow and reproduce.

03

A CLEANER SURFACE

The treated ceramic surface is protected from microbial proliferation for its expected lifetime and remains cleaner in-between cleanings.

04

WHAT WOULD YOU DO MORE OF IF YOU COULD WORRY LESS?

We are increasingly aware of the global attention and demand for products with surface protection and enhancement opportunities. We have to make choices on a day-to-day basis, and pay special attention to those having to do with the spaces in which we live and work on. This is why Daltile® has developed a distinct product line of high-performance porcelain antimicrobial floor and wall tiles. Designed to promote cleaner spaces empowered with Microban® antimicrobial product protection for your floor, wall and mosaic tile and to provide a lifetime of cleanliness that does not wash off or wear away.

Photo features Defend™ – Wood Look Smoke 6 x 36 on the floor.



BACTERIA ARE EVERYWHERE.

DID YOU KNOW, THERE ARE MORE BACTERIA ON ONE HAND THAN PEOPLE ON PLANET EARTH?

KNOWING THIS, HOW CAN WE LIVE AND WORK ON OUR SURFACES WITH PEACE OF MIND? PRODUCT CLEANING SOLUTIONS ARE ONLY TEMPORARY.

The solution has arrived in **DEFEND™** product technology by Daltile®. Besides having an assortment of beautiful and trendy visuals most popular today with remarkable durability, these antimicrobial surfaces have been created in partnership with Microban® International, the world-leading antimicrobial brand in the sector: creating a powerful antimicrobial shield built into the product continuously fighting the growth of up to 99% of bacteria on the surface. The result is a surface which is consistently protected, 24 hours a day, 7 days a week.

Thanks to its global approach, Microban® technology is known and appreciated by more than 300 brands worldwide and used in more than 1000 products, not only in construction but also in commercial, consumer goods, education, healthcare, transportation and food services.



Photo features Defend™ – Marble Look Glamour 12 x 24 matte on the floor.



THE BENEFITS:



ACTIVE 24/7

Microban® technology is a cost-effective solution that remains active for your ceramic product's expected lifetime.*
*So long as the glaze remains intact.



EFFECTIVE AGAINST BACTERIA

Microban® Technology has been proven effective against a broad spectrum of bacteria.



ENHANCES CLEANLINESS & DURABILITY

Product cleanliness is visibly improved without affecting the appearance, functions or durability of your product.



EXTENDED PRODUCT LIFETIME

Microban® antimicrobial ceramic technologies are effective against the growth of stain-and odor-causing bacteria. This helps to create inherently cleaner and more durable ceramic products.



SAFE TO USE

Microban® antimicrobial ceramic products contain non-leaching technologies that are notified with the EU Biocidal Products Regulation (BPR) and registered with the US Environmental Protection Agency (EPA).



FOOD CONTACT APPROVED

Select Microban® antimicrobial ceramic technologies are approved for use in direct food-contact applications.

WHY CHOOSE **DEFEND™**?

Bacteria are invisible to the human eye, however that doesn't mean they aren't there! With surfaces featuring antimicrobial technology, the growth of bacteria is significantly reduced on floor, wall and mosaic tiles.

The presence of bacteria can also cause odors. Reducing bacteria counts reduces odor.

Surfaces with **DEFEND™** are easier to keep clean. While having a product with built-in antimicrobial product protection is not a substitute for routine cleaning, it allows continuous and complete cleaning of your surfaces with an even better level of cleanliness in-between cleanings.

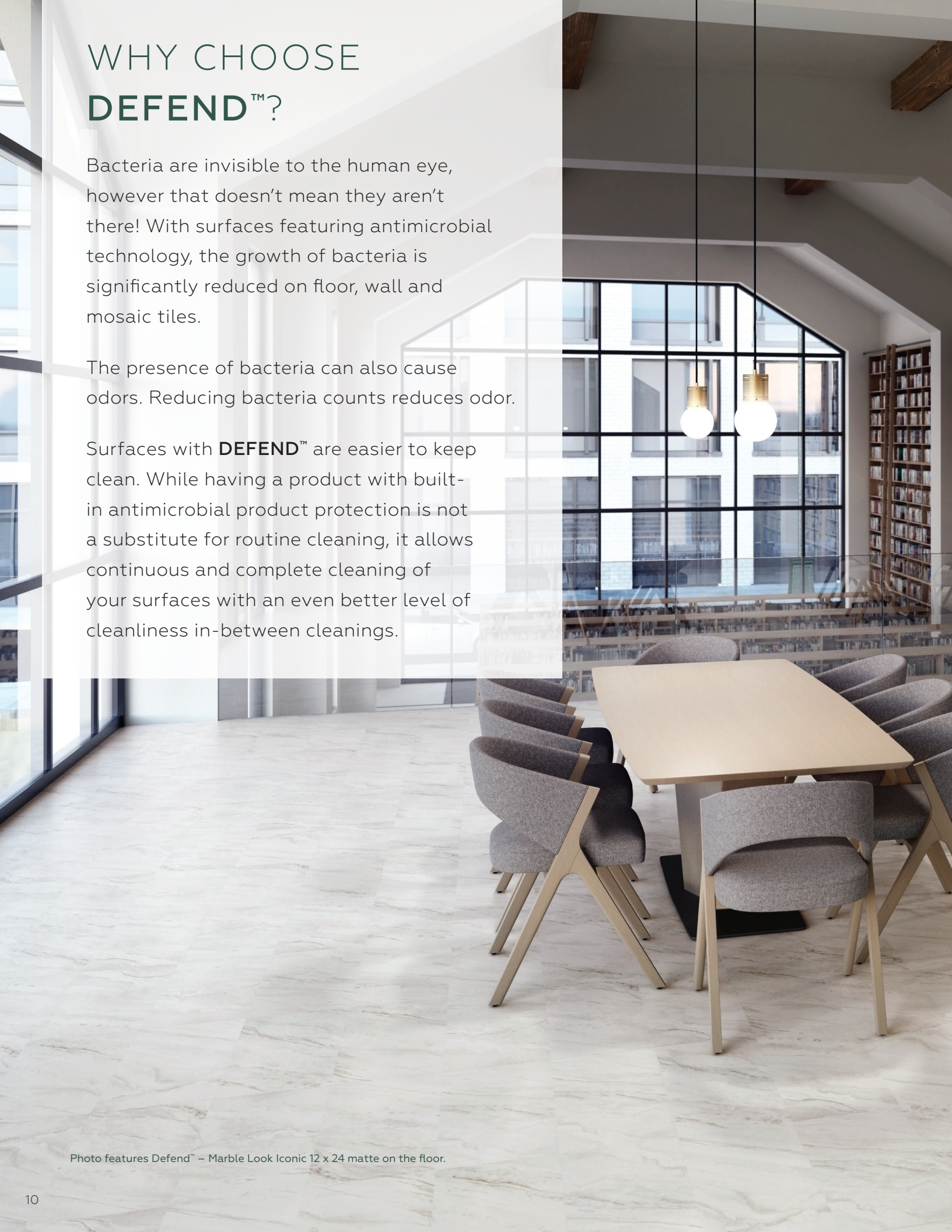


Photo features Defend™ – Marble Look Iconic 12 x 24 matte on the floor.

USAGE:

RESIDENTIAL:

Kitchens (interior and exterior), Bathrooms, Nurseries, Gameroom / Playroom



COMMERCIAL:

Restaurants & Bars, Healthcare Environments, Gyms & Spas, Airports & Train Stations, Shopping Centers, Schools & Theatres, Corporate Offices, Sports Centers



EFFECTIVENESS:

Surfaces featuring Microban® – **DEFEND™** have a unique competitive advantage. These surfaces are a true antimicrobial shield helping to prevent **UP TO 99% OF SURFACE BACTERIA.**



UNPROTECTED
SURFACE



ANTIMICROBIAL
PROTECTED SURFACE

WITH MICROBAN® YOU CAN WORRY LESS AND LIVE MORE WITH TIME TO DO MORE OF WHAT YOU ENJOY IN LIFE



MARBLE LOOK

COLOR PALETTE



DIAMOND



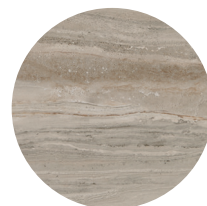
ICONIC



FORTUNE



GLAMOUR

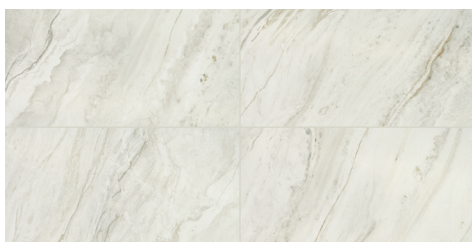


LUXE

COLORBODY™ PORCELAIN FLOOR – 24 x 24 & 12 x 24 – AVAILABLE IN MATTE & POLISHED



DIAMOND FM10



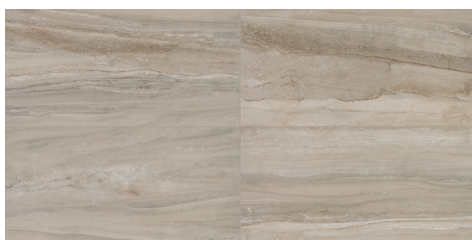
ICONIC FM11



FORTUNE FM14



GLAMOUR FM13



LUXE FM12

COLORBODY™ PORCELAIN CHEVRON MOSAIC – POLISHED



DIAMOND FM10



ICONIC FM11



FORTUNE FM14

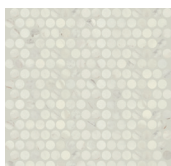


GLAMOUR FM13



LUXE FM12

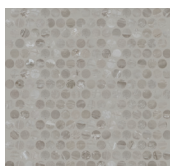
GLAZED CERAMIC PENNY ROUND MOSAIC – MATTE



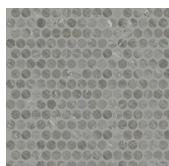
DIAMOND FM10



ICONIC FM11



FORTUNE FM14



GLAMOUR FM13



LUXE FM12

SIZES:



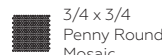
24 x 24
Floor Tile



12 x 24
Floor Tile



3 x 6
Chevron
Mosaic



3/4 x 3/4
Penny Round
Mosaic



Photo features Defend™ - Marble look Diamond 12x24 on the floor with penny rounds on the backsplash.



MARBLE LOOK

COLOR PALETTE



CALYPSO

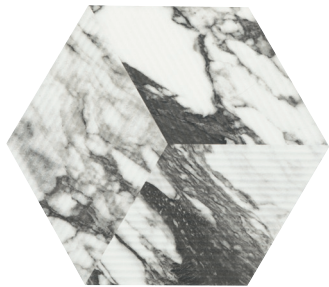


NOVA

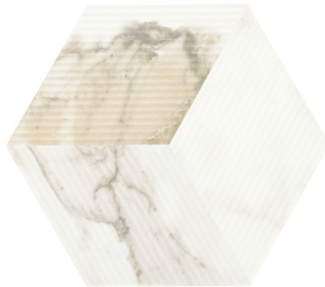


ZION

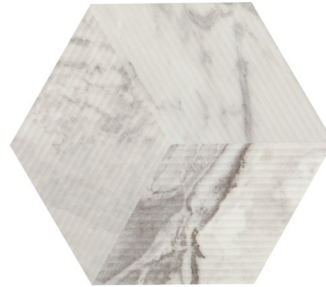
8" 3D HEXAGON FLOOR TILE



CALYPSO DV05



NOVA DV06



ZION DV07

6 x 18 WALL TILE



CALYPSO DV05



NOVA DV06



ZION DV07

3 x 12 WALL TILE



CALYPSO DV05



NOVA DV06



ZION DV07

3 x 12 PICKET WALL TILE



CALYPSO DV05

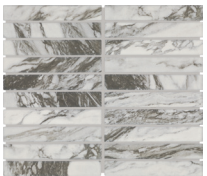


NOVA DV06



ZION DV07

1 x 6 MOSAIC TILE



CALYPSO DV05

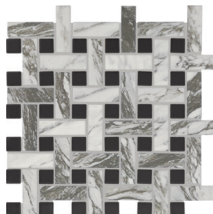


NOVA DV06



ZION DV07

1 x 3 BASKETWEAVE MOSAIC TILE



CALYPSO DV05



NOVA DV06



ZION DV07

1/2 x 10 JOLLY TRIM



CALYPSO DV05



NOVA DV06



ZION DV07

SIZES:



6 x 18
Wall Tile



3 x 12
Wall Tile



3 x 12 Picket
Wall Tile



8" 3D Hex
Floor Tile



1 x 3
Basketweave
Mosaic



1 x 6
Mosaic



Photo features Defend™ – Marble Look Nova 6 x 18 glossy and Basketweave Mosaic on the floor with 6 x 18 wall tile and 1 x 6 Mosaic on the walls.



WOOD LOOK

COLOR PALETTE



ASH WHITE



BUTTER PECAN



HICKORY PECAN

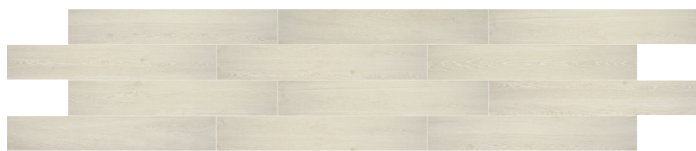


SMOKE



NATURAL ASH

COLORBODY™ PORCELAIN FLOOR – 8 x 48



ASH WHITE EP06 MB



BUTTER PECAN EP01 MB



HICKORY PECAN EP05 MB

COLORBODY™ PORCELAIN FLOOR – 6 x 36



SMOKE TR23 MB



NATURAL ASH TR21 MB

COLORBODY™ PORCELAIN 3D CUBE MOSAIC



ASH WHITE EP06 MB



BUTTER PECAN EP01 MB



HICKORY PECAN EP05 MB

SIZES:



8 x 48
Floor Tile



6 x 36
Floor Tile



3D Cube
Mosaic



Photo features Defend™ – Wood Look Butter Pecan 8 x 48 on the floor.



STONE LOOK

COLOR PALETTE



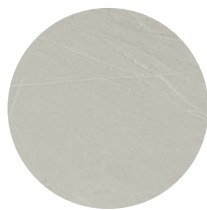
ARISTOTLE WHITE



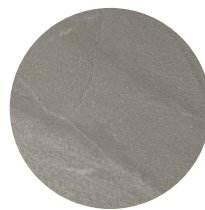
PHILOSOPHER BEIGE



ELOQUENT GREY



MAESTRO

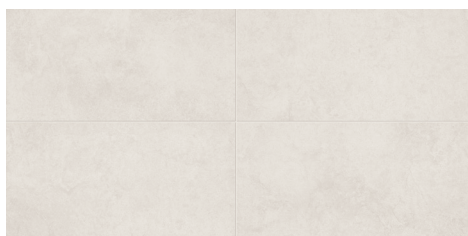


COMPOSER



STRIA MAESTRO

FLOOR TILE – 12 x 24



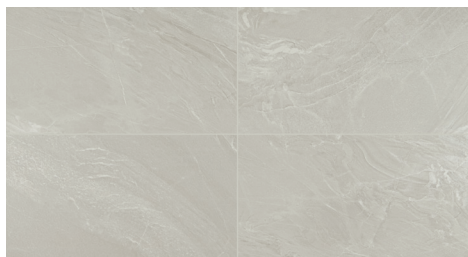
ARISTOTLE WHITE RT05 MB



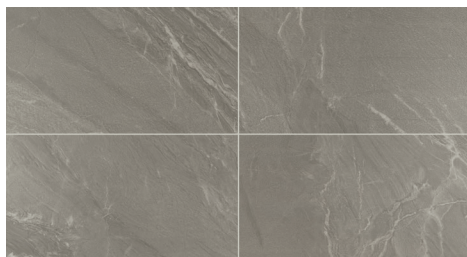
PHILOSOPHER BEIGE RT06 MB



ELOQUENT GREY RT07 MB



MAESTRO VR10 MB



COMPOSER VR11 MB



STRIA MAESTRO VR13 MB

CHEVRON MOSAIC



MAESTRO VR10 MB



COMPOSER VR11 MB



STRIA MAESTRO VR13 MB

SIZES:



12 x 24
Floor Tile



Chevron
Mosaic

FINISHES: MATTE



COLOR PALETTE



TUSK

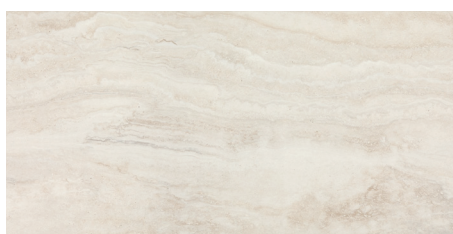


ALMOND



NIMBUS

FLOOR TILE – 15 x 30



TUSK CA41



ALMOND CA42



NIMBUS CA43

FLOOR TILE – 12 x 24



TUSK CA41



ALMOND CA42



NIMBUS CA43



Photo features Calligo™ Tusk CA41 12x24 on the floor.



CONCRETE LOOK

COLOR PALETTE



STEREO GREY



ELECTRIC MOSS



DEGREES SILVER



AMPLIFY BLACK



ICE



DOVE GREY



WHITE



BEIGE



LIGHT GREY



MEDIUM GREY



TERRACOTTA

FLOOR TILE – 24 x 48 & 24 x 24



WHITE RK10



BEIGE RK11



LIGHT GREY RK12



MEDIUM GREY RK13



TERRACOTTA RK14

FLOOR TILE – 12 x 24



STEREO GREY
VL73 MB



ELECTRIC MOSS
VL79 MB



DEGREES SILVER
VL71 MB



AMPLIFY BLACK
VL70 MB



ICE
PF01 MB



DOVE GREY
PF04 MB



WHITE RK10



BEIGE RK11



LIGHT GREY RK12



MEDIUM GREY RK13



TERRACOTTA RK14



2 x 6 HERRINGBONE MOSAIC



WHITE RK10



BEIGE RK11



LIGHT GREY RK12

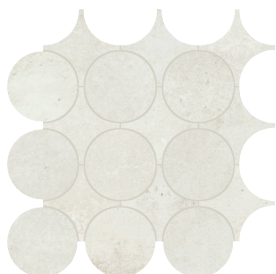


MEDIUM GREY RK13



TERRACOTTA RK14

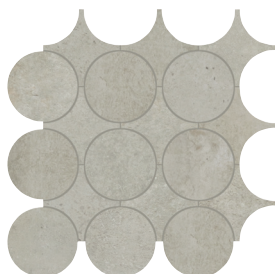
CANVAS DOT MOSAIC



WHITE RK10



BEIGE RK11



LIGHT GREY RK12



MEDIUM GREY RK13



TERRACOTTA RK14

SIZES:



24 x 48
Floor Tile



24 x 24
Floor Tile



12 x 24
Floor Tile



2 x 6 Herringbone
Mosaic



Canvas Dot
Mosaic

FINISHES: MATTE



Photo features Defend™ - Concrete look Beige 24 x 48 and 2 x 6 herringbone mosaic on the floor with Terracotta canvas dot mosaic on the walls.



FABRIC LOOK

COLOR PALETTE



MODERN
LINEAR WHITE



MODERN LINEAR
MEDIUM GREY

MODERN LINEAR FLOOR TILE – 12 x 24



MODERN LINEAR WHITE ML60 MB



MODERN LINEAR MEDIUM GREY ML63 MB

SIZES:

12 x 24
Floor Tile

FOR COMPLETE PRODUCT INFORMATION, PLEASE VISIT WWW.DAL TILE.COM/DEFEND

FINISHES: MATTE



Photo features Defend™ – Fabric Look Modern Linear Medium Grey 12 x 24 matte on the floor.



WALL

COLOR PALETTE



SALT



DUNE

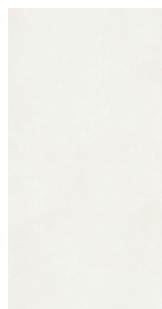


ROCK



BRICK

PLATEAU WALL TILE



SALT RC10



DUNE RC11



ROCK RC12

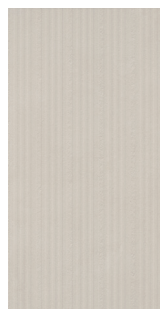


BRICK RC13

LAYER WALL TILE



SALT RC10



DUNE RC11



ROCK RC12



BRICK RC13

STREAM WALL TILE



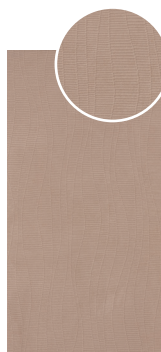
SALT RC10



DUNE RC11

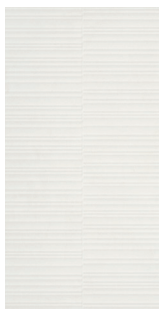


ROCK RC12

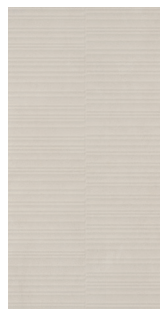


BRICK RC13

RIDGE WALL TILE



SALT RC10



DUNE RC11

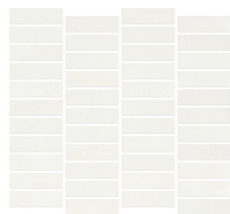


ROCK RC12

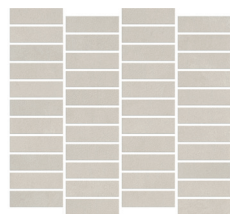


BRICK RC13

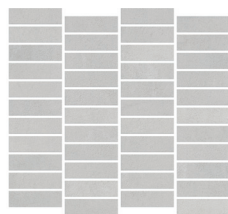
1 x 3 OFF-SET MOSAIC



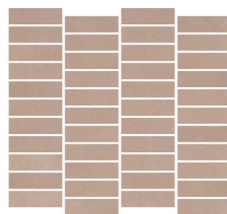
SALT RC10



DUNE RC11

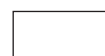


ROCK RC12



BRICK RC13

SIZES:



12 x 24
Wall Tile



1 x 3 Off-Set
Mosaic



Photo features Defend™ – Salt 12 x 24 on the back wall, Brick Plateau on the back shower wall, Brick Layer on the right shower wall, and Brick 1 x 3 Off-Set Mosaic on the shower floor.



MOSAIC

COLOR PALETTE



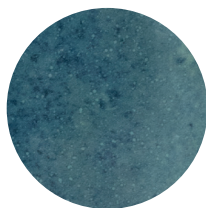
PEARL



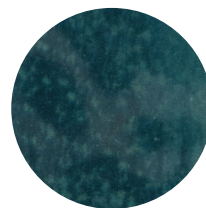
OYSTER



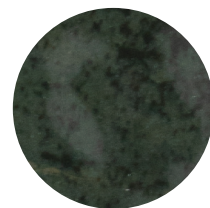
SAND



AQUA



HORIZON



REEF

1 x 6 MOSAIC



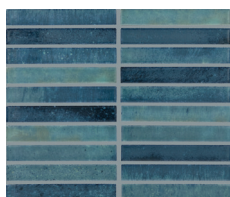
PEARL MR44



OYSTER MR45



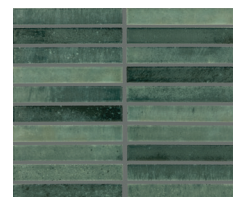
SAND MR46



AQUA MR47



HORIZON MR48



REEF MR49

2 x 5 PICKET MOSAIC



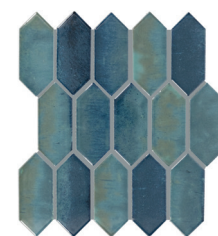
PEARL MR44



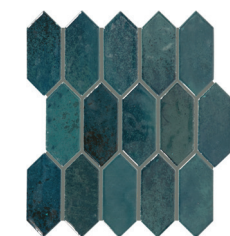
OYSTER MR45



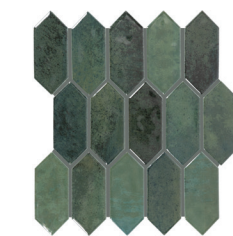
SAND MR46



AQUA MR47



HORIZON MR48



REEF MR49

3" FAN MOSAIC



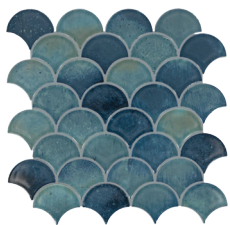
PEARL MR44



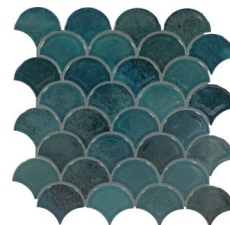
OYSTER MR45



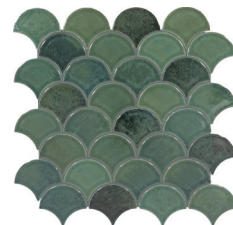
SAND MR46



AQUA MR47



HORIZON MR48



REEF MR49

SIZES:



1 x 6
Mosaic



2 x 5 Picket
Mosaic



3" Fan
Mosaic



Photo features Defend™ - Mosaic Aqua 3" Fan Mosaic on the vanity wall.



Photo features Defend™ – Concrete Look Terracotta 24 x 24 and Canvas Dot Mosaic matte on the floor.



Photo features Defend™ – Wall Rock 12 x 24 ridge wall tile on the wall.



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LEARN MORE AT [DALTILE.COM/DEFEND](https://daltille.com/defend).

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