



PROTECT AGAINST THE INVISIBLE



MARAZZI 



Photo Features Inyo™ Olive Penny Rounds mosaic on the backsplash and Ink 8" Hexagon on the front wall of the island.

WHAT IS MICROBAN® TECHNOLOGY

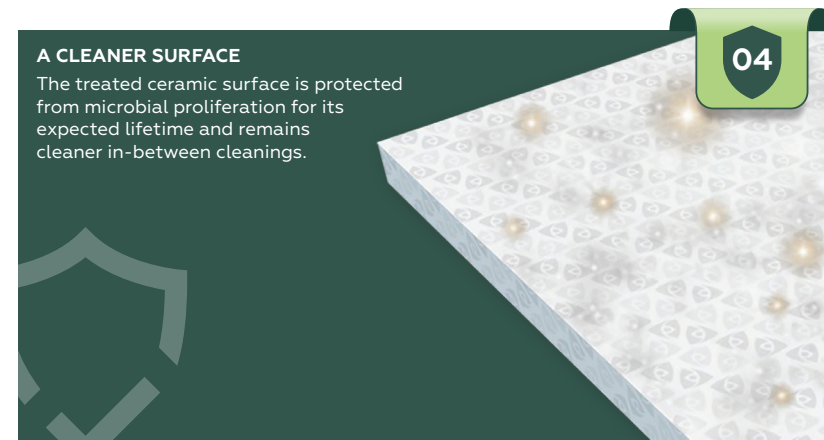
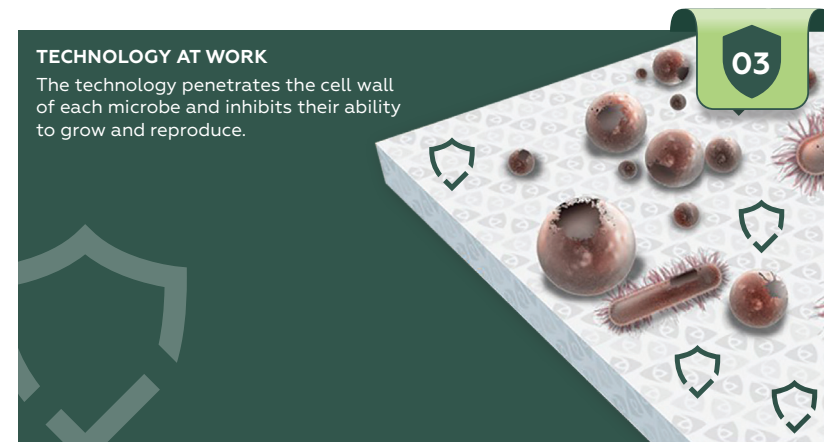
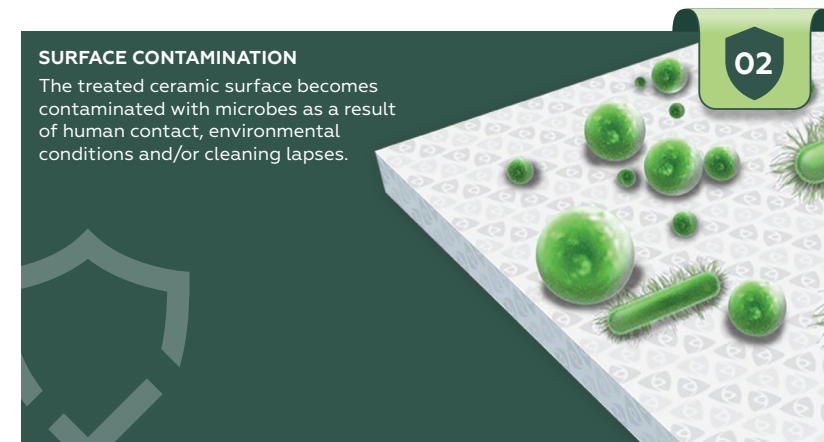
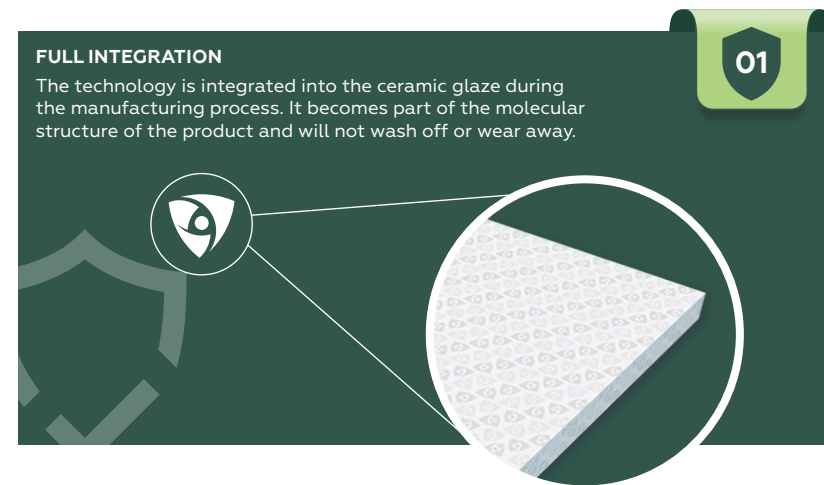
Antimicrobial product protection has revolutionized product cleanliness, becoming a key aid in the fight against product damaging microbes.



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?

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.

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 Marazzi® 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 Inyo™ Ember 2 x 8 on the wall.

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 Marazzi®. Besides having an assortment of popular, beautiful, and trendy visuals 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.

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 ceramics 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

Selected 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 count 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.

USAGE:

RESIDENTIAL:

Kitchens, Bathrooms, Nurseries, Gameroom / Playroom, Laundry & Mudrooms



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.**



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

Photo features Inyo™ Olive 2 x 8 on the wall.

USAGE

FLOORWALLCOUNTERTOPSHOWER FLOOREXTERIOR FLOOR

MATERIAL

PGPEGGINGCGGLAZED CERAMIC

PRICING

LOWHIGH

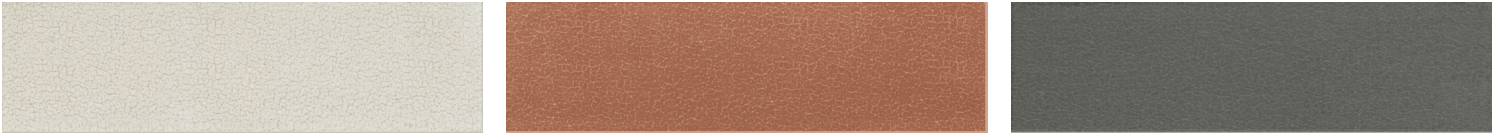
SPECIAL FEATURES

STEPWISETRUEDGE™MADE IN THE U.S.A.LARGE FORMATMOSAIC/DECOENCAUSTICTERRAZZOPAVERCUSTOMIZE

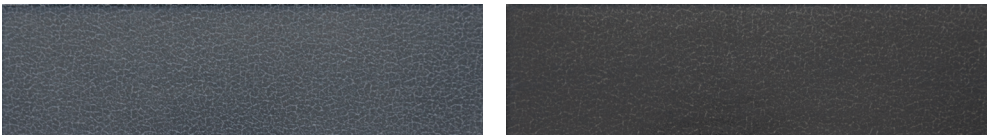
FABRIC LOOK

NOT APPLICABLE FOR ALL PRODUCTS IN THIS SERIES. SEE CHARTS FOR FULL PRODUCT DETAILS.

2 x 8 FLOOR TILE

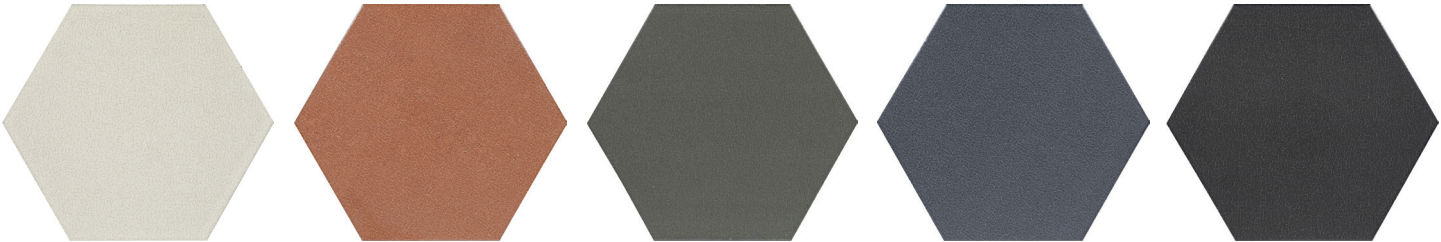


IN70 CremaIN71 EmberIN72 Olive



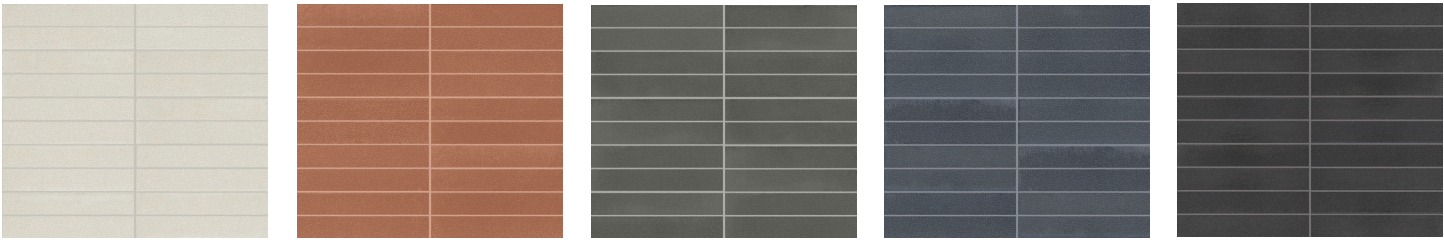
IN73 IndigoIN74 Ink

8" HEXAGON FLOOR TILE



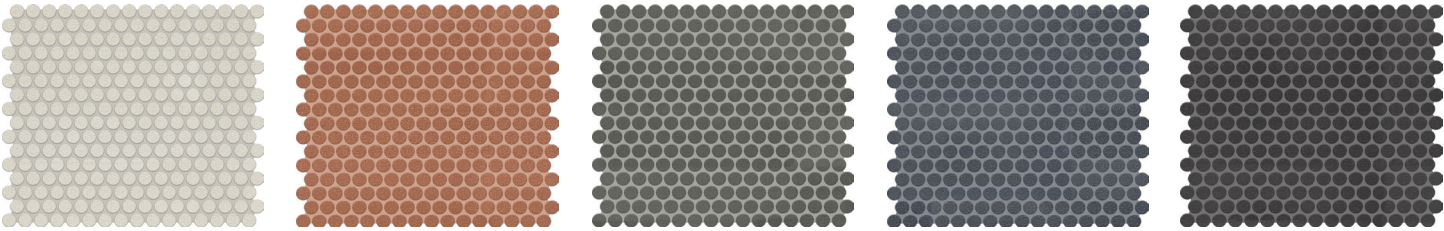
IN70 CremaIN71 EmberIN72 OliveIN73 IndigoIN74 Ink

1 x 6 MOSAIC – 12 x 10 SHEET



IN70 CremaIN71 EmberIN72 OliveIN73 IndigoIN74 Ink

PENNY ROUND MOSAIC – 13 x 12 SHEET



IN70 CremaIN71 EmberIN72 OliveIN73 IndigoIN74 Ink

WATERPROOF

STAINPROOF

DENTPROOF

SCRATCH-RESISTANT

FIRE-RESISTANT

CLIMATEPRO™

SIMPLICLEAN®

VISIT MARAZZIUSA.COM/WHYTILE FOR A COMPLETE LIST OF QUALIFICATIONS AND EXCLUSIONS.

SIZES

			Thickness	Sq. Ft./Carton	Pieces/Carton
	2 x 8 Floor Tile	2" x 7-15/16" (5.08 cm x 20.26 cm)	3/8"	4.00	36
	8" Hexagon Floor Tile*	7-7/8" x 9-1/16" (20.04 x 23.16 cm)	5/16"	9.37	25
	1 x 6 Mosaic* (Dot-mounted)	11-1/2" x 9-3/4" (29.21 cm x 24.76 cm Sheet)	5/16"	8.30	10
	Penny Round Mosaic** (Dot-mounted)	13-3/8" x 11-3/8" Sheet (33.97 cm x 28.89 cm Sheet)	1/4"	10.60	10

* 2 x 8, 8" Hexagon & 1 x 6 Mosaic available in satin finish only.
** Penny Round Mosaic available in matte finish only.

APPLICATIONS

	Target DCOF wet	Suitable
Dry & Level – Interior Floor	N/A	■
Wet & Level – Interior Floor	≥ 0.42	■*
Shower Floors (Residential or Light Commercial)	≥ 0.42	■*
Exterior Floor Applications (including pool decking & other wet areas with minimal footwear)	≥ 0.60	
Ramps & Inclines	≥ 0.65	
Walls/Backsplashes	N/A	■
Countertops	N/A	■
Pool Linings	N/A	■**

A DCOF value of ≥0.42 is the standard for tiles specified for level interior spaces expected to be walked upon when wet, as stated in ANSI A137.1-A326.3. For more information about DCOF and the DCOF AcuTest™, visit marazziusa.com/DCOF.

APPLICATION NOTES:

Suitable for exterior applications (provided it is noted as suitable in the applications chart above) in freezing and non-freezing climates, when proper installation methods are followed.
Mosaics suitable for exterior applications (provided it is noted as suitable in the applications chart above) in non-freezing climates, when proper installation methods are followed.
* Penny Round mosaic only.
** Mosaic tile only.

INSTALLATION

Grout Joint Recommendation	Shade Variation
1/8"	High Variation

PERFORMANCE CHARACTERISTICS

	ASTM#	Floor Result	Mosaic Result
Water Absorption	C373	< 0.5%	< 3.0%
Breaking Strength	C648	> 275 lbs	> 250 lbs
Scratch Hardness	MOHS	8.0	6.0 - 8.0
Chemical Resistance	C650	Resistant	Resistant

For additional information on test results, visit us at: marazziusa.com/information/TestResults.

DURABILITY

Floor Surface Wear Resistance			
1	Residential Bathrooms	③	All Residential / Light Commercial
2	All Residential Areas	4	All Residential / Commercial

NOTES

Since there are variations in all fired ceramic and natural products, tile and trim supplied for your particular installation may not match samples. Final confirmation should be made from actual tiles and trim prior to installation. Manufactured in accordance with ANSI A137.1 standards.

To achieve optimal results, all tile should be selected from multiple cartons and shading and graphic arrangement planned prior to installation.

Water, oil, grease, improper drainage and certain footwear can create slippery conditions. Floor applications expected to be exposed to these conditions require extra caution in product selection.

For additional information refer to “Factors to Consider” at: marazziusa.com/Factors.

Use of a white latex modified thin-set is recommended for installation.

Special care should be taken when grouting with dark pigmented colors. A grout release is recommended to prevent finely powdered pigments from lodging in the pores of the surface. Use of a latex modified thin-set is recommended for installation.

FEATURES

POST-CONSUMER RECYCLED MATERIALS

PRE-CONSUMER RECYCLED MATERIALS

REVEAL IMAGING®

CORCELAINE

ZEROTOX

GREENGUARD

HEALTHY HOMES

HEALTHY PLANET

All or select items within this series meet the requirements for these qualifications. For more information visit marazziusa.com.



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LEARN MORE AT [MARAZZIUSA.COM/DEFEND](https://marazziusa.com/defend).

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