

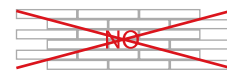


	Technical Specifications	Standard Requirement		Test Result
		Reference Standard		
	Water Absorption	< 0,5 UNI EN ISO 10545-03		0,2%
	Breaking Strength	Minimum: 1300 N UNI EN ISO 10545-04		Compliant
	Modulus of Rupture	Minimum: 35 N/mm ² UNI EN ISO 10545-04		Compliant
	Shock Resistance	Suggested Minimum: e>0,55 UNI EN ISO 10545-05		Compliant
	Resistance to Deep Abrasion	Maximum: 175 mm ³ UNI EN ISO 10545-06		Compliant
	Thermal Linear Expansion	Tests method available UNI EN ISO 10545-08		≤ 7 · MK ⁻¹
	Thermal Shock Resistance	Resistant UNI EN ISO 10545-09		Compliant
	Frost Resistance	As Reported UNI EN ISO 10545-12		Compliant
	Chemical Resistance	Domestic Chemical Products: UB / GB Acids and Alkalis: As Reported UNI EN ISO 10545-13		Compliant ULA
	Stain Resistance	Minimum: Class 3 UNI EN ISO 10545-14		Class 5
	Static Coefficient of Friction (COF)	For Level Interior Spaces Expected to be Walked Upon When Wet: > 0.62 ASTM C 1028		DRY: 0,81 WET: 0,62
	Dynamic Coefficient of Friction (DCOF)	For Level Interior Spaces Expected to be Walked Upon When Wet	> 0.42	>0.42 WET
	Shade Variation	As Reported Not available		V3
	Thickness	As Reported Not available		10mm
	Number of Screens	As Reported Not available		40

The data refers to first choice material in the natural version.

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE

1/2 BROKEN JOINT
NOT RECOMMENDED



MANUFACTURE RECOMMENDS 1/3
OR LESS STAGGERED SPACING



HAPPY FLOORS



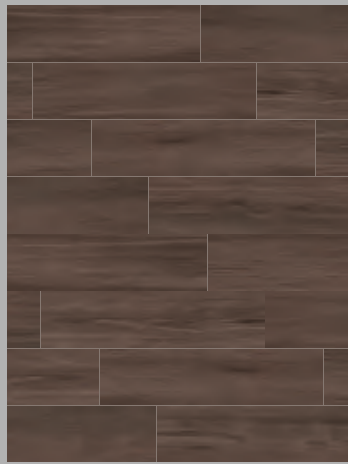
I-Design Collection
www.Happy-Floors.com



Acorn

Full Body Porcelain





Mahogany



9"x36" RECTIFIED EDGE



3"x18" Bullnose

Walnut



9"x36" RECTIFIED EDGE



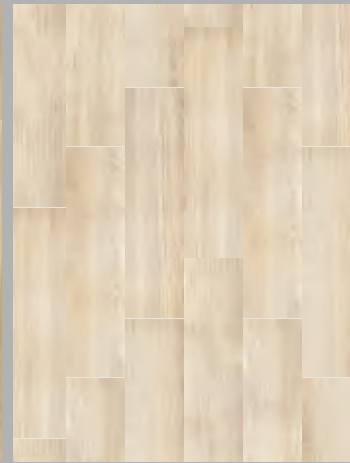
3"x18" Bullnose



Grey



Pecan



Pecan

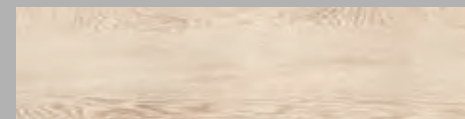


9"x36" RECTIFIED EDGE



3"x18" Bullnose

Natural



9"x36" RECTIFIED EDGE



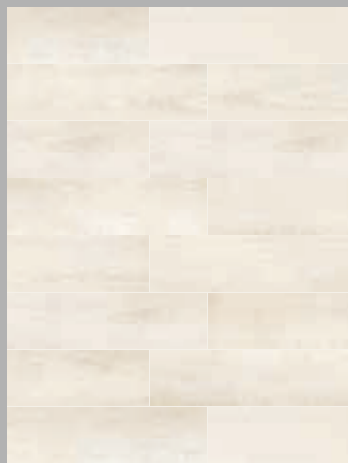
3"x18" Bullnose



White



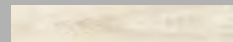
Walnut



White



9"x36" RECTIFIED EDGE

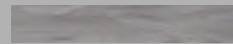


3"x18" Bullnose

Grey



9"x36" RECTIFIED EDGE



3"x18" Bullnose



Natural



Mahogany

White

Grey



	Technical Specifications	Standard Requirements	Test Results	
			NATURAL	POLISHED
	Water Absorption UNI EN ISO 10545-03	<0.5%	E<0,1%	
	Breaking Strength UNI EN ISO 10545-04	Minimum: 1300 N	1800-2400 N	
	Modulus of Rupture UNI EN ISO 10545-04	Minimum: 35 N/mm ²	35-45 N/mm ²	
	Shock Resistance UNI EN ISO 10545-05	Suggested Minimum: e > 0,55	e 50,55 Restitution Coefficient	
	Resistance to Deep Abrasion UNI EN ISO 10545-06	Maximum: 175 mm ³	110-130 mm ³	
	Thermal Linear Expansion UNI EN ISO 10545-08 n	Minimum for Floor Applications: Class 3	27x10 ⁻⁶ °C	
	Thermal Shock Resistance UNI EN ISO 10545-09	Resistant	Resistant	
	Moisture Expansion UNI EN ISO 10545-10	As Reported	0,0%	
	Frost Resistance UNI EN ISO 10545-12	As Reported	Resistant	
	Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products: UB/GB Acids And Alkalis: As Reported	UA ULC-UMC	
	Stain Resistance UNI EN ISO 10545-03	Minimum: Class 3	5	
	PEI Rating (Scratch Resistance) ASTM C 1027	As Reported	PEI IV	-
	Static Coefficient of Friction (COF) ASTM C 1028	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.60	> 0.60	-
	Dynamic Coefficient of Friction (DCOF) ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.42	> 0.42	-
	Thickness	As Reported	12" x 24" - 9 mm / 24" x 24" - 10 mm	
	Number of Screens	As Reported	12" x 24" - 24 / 24" x 24" - 12	

1/2 BROKEN JOINT NOT RECOMMENDED



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ALASKA

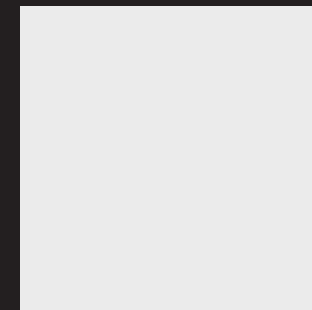
RECTIFIED PORCELAIN



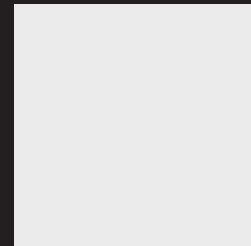


ALASKA

Rectified Porcelain



30" x 30" Glossy
30" x 30" Matte



24" x 24" Glossy
24" x 24" Matte



12" x 24" Glossy
12" x 24" Matte



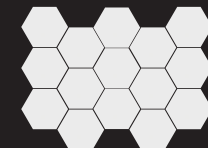
6" x 24" Glossy
6" x 24" Matte



3" x 24" Bullnose Glossy
3" x 24" Bullnose Matte



2" x 2" Mosaic Glossy
12" x 12" Sheet
2" x 2" Mosaic Matte
12" x 12" Sheet



Hexagon Mosaic Glossy
10" x 14" Sheet
Hexagon Mosaic Matte
10" x 14" Sheet
Net Coverage: 0.80 sqft

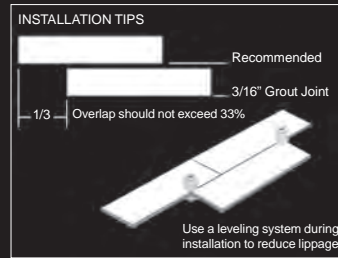
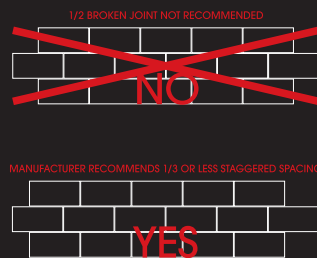


Bianco



Grigio

	Technical characteristics Marmi	Standard requirements	Test results
	Water Absorption UNI EN ISO 10545-03	≤ 0,5%	< 0.2
	Breaking strength UNI EN ISO 10545-04	Minimum: > 1300 N	> 1600
	Modulus of rupture UNI EN ISO 10545-04	Minimum: > 35 N/mm ²	> 40
	Shock resistance UNI EN ISO 10545-05	Suggested minimum: e > 0,55	
	Resistance to deep abrasion UNI EN ISO 10545-06	Maximum: < 175 mm ³	< 175 mm ³
	Linear thermal expansion UNI EN ISO 10545-08	Minimum for floor applications: Class 3	7.0
	Thermal shock resistance UNI EN ISO 10545-09	Resistant	Resist
	Determination of moisture expansion UNI EN ISO 10545-10	As reported	
	Frost resistance UNI EN ISO 10545-12	As reported	Resist
	Chemical resistance UNI EN ISO 10545-13	UB / GB As reported	Conform MIN GB
	Stain resistance UNI EN ISO 10545-14	Minimum: Class 3	≥ 3
PEI	PEI Rating (scratch resistance) ASTM C 1027	As reported	PEI V: beige, tortora, grigio PEI IV: grigio
COF	Static coefficient of friction C.O.F. ASTM C 1028	> 0.60	DRY: 0.65 WET: 0.60
DCOF	Dynamic coefficient of friction D.C.O.F. ANSI A 137.1	> 0.42	0.55
	Thickness	As reported	10 mm
	Number of screens	As reported	30 for 12"x48" / 45 for 8"x48"
	Shade Variation V2	As reported	V2



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Alpi

FULL BODY PORCELAIN



Beige



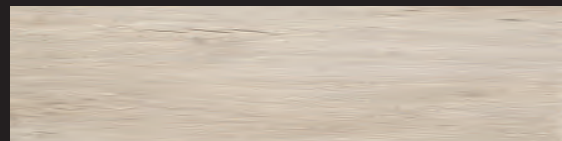
Tortora

Alpi

GROUT JOINT REQUIRED FOR RECTIFIED EDGE
TILE 1/2 BROKEN JOINT NOT RECOMMENDED



Bianco



12"x48" RECTIFIED EDGE



8"x48" RECTIFIED EDGE



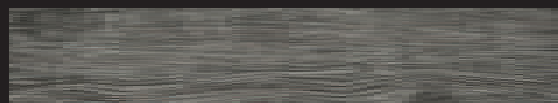
3"x24" Bullnose



Grigio



12"x48" RECTIFIED EDGE



8"x48" RECTIFIED EDGE



3"x24" Bullnose



Beige



12"x48" RECTIFIED EDGE



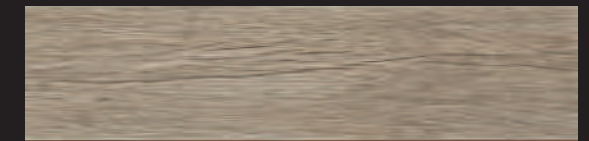
8"x48" RECTIFIED EDGE



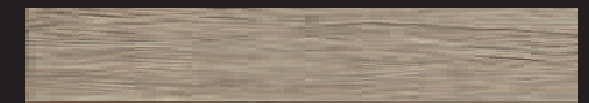
3"x24" Bullnose



Tortora



12"x48" RECTIFIED EDGE



8"x48" RECTIFIED EDGE



3"x24" Bullnose



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Technical characteristics AZUMA (Thickness 03")	Typical Values	Expected Limit Values
Water Absorption UNI EN ISO 10545-03	< = 0,5%	< = 0,5% UNI EN 14411 G
Breaking strength UNI EN ISO 10545-04	> 1300N	1300 N min UNI EN 14411 G
Modulus of rupture UNI EN ISO 10545-04	> 35 N/mm ²	35 N/mm ² UNI EN 14411 G
Shock resistance UNI EN ISO 10545-05	e > 0,55 Restitution coefficient	Available test method UNI EN 14411 G
Resistance to deep abrasion UNI EN ISO 10545-06	< = 175 mm ³	175 mm ³ max UNI EN 14411 G
Linear thermal expansion UNI EN ISO 10545-08	7,1 (10-6° C-1)	Available test method UNI EN 14411 G
Thermal shock resistance UNI EN ISO 10545-06	Resistant	Available test method UNI EN 14411 G
Determination of moisture expansion UNI EN ISO 10545-10	≤ 0.06%	Available test method UNI EN 14411 G
Frost resistance UNI EN ISO 10545-12	Resistant	Required UNI EN 14411 G
Chemical resistance UNI EN ISO 10545-13	A	UB Min. - UNI EN 14411 G
	LA	From ULA to ULC / From UHA to UHC
Stain resistance UNI EN ISO 10545-13	5	Available method
PEI Rating (Scratch Resistance)	CG/AG - V DG/N - IV	
Slip resistance DIN 51130	R 9	From R9 to R13 BGR 181
Slip resistance barfoot DIN 51097	A	Available test method UNI EN 14411 G
Dynamic coefficient of friction D. C.O.F.	≥ 0,42	
Shade variation	Medium	
Thickness	10 mm - 6,5 mm	
Number of Screens	24"x48" 28 different screens 24"x24" 56 different screens 12"x24" 112 different screens	

**GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE.
½ BROKEN JOINT NOT RECOMMENDED**

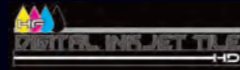
1/2 BROKEN JOINT NOT
RECOMMENDED



MANUFACTURER RECOMMENDS
1/3 OR LESS STAGGERED SPACING



HAPPY FLOORS



The data refers to first choice material in the natural version.

AZUMA

FULL BODY PORCELAIN

AZUMA AG



AZUMA CG



AZUMA AG



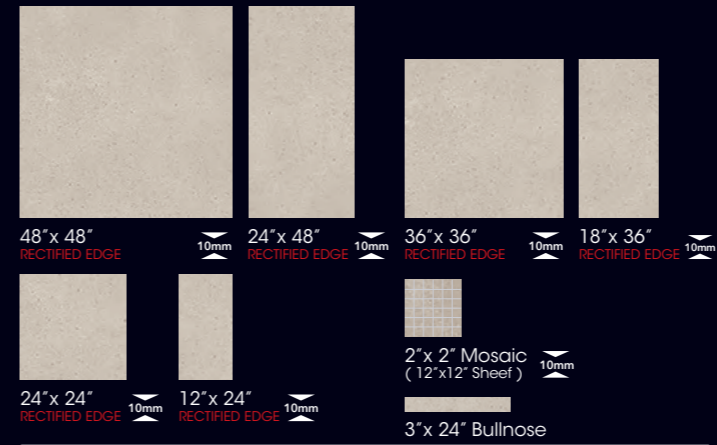
AZUMA DG



AZUMA N

AZUMA CG

Standard Formats

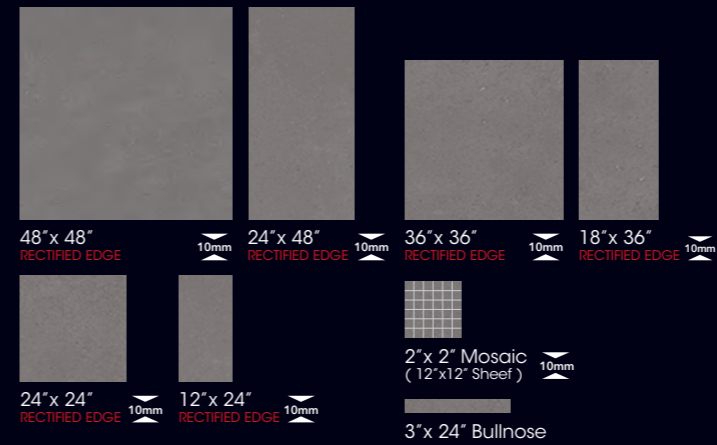


Gauged Porcelain Slabs



AZUMA DG

Standard Formats

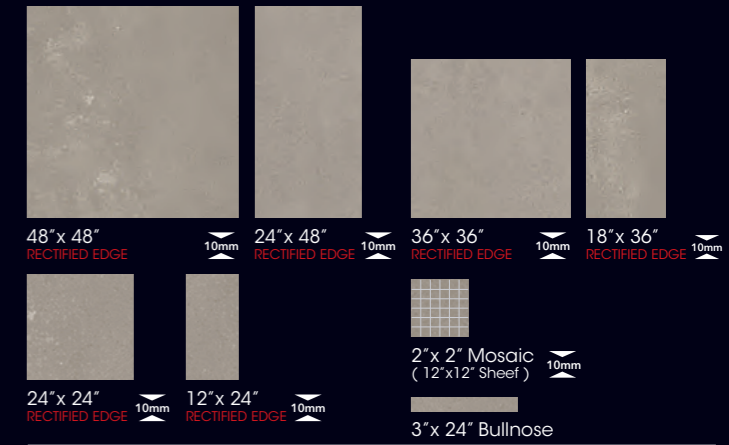


Gauged Porcelain Slabs

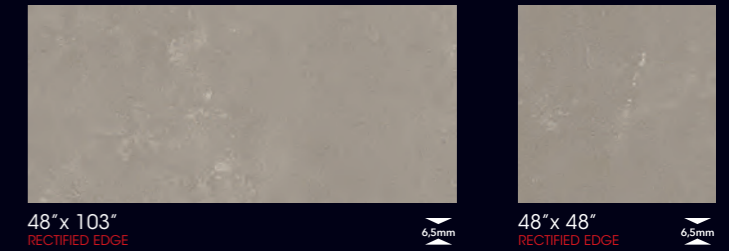


AZUMA AG

Standard Formats

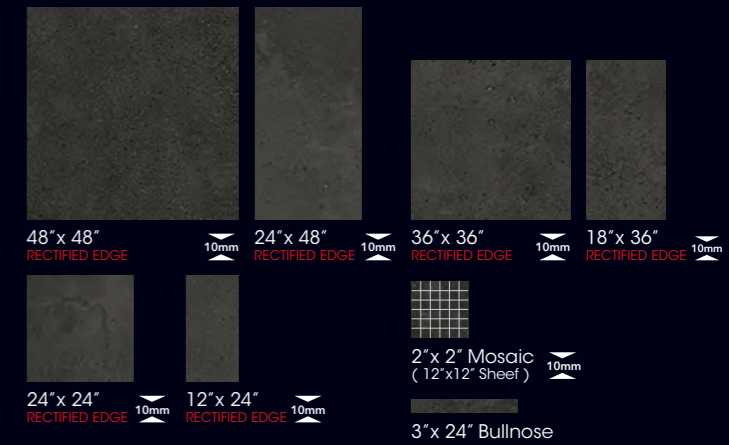


Gauged Porcelain Slabs

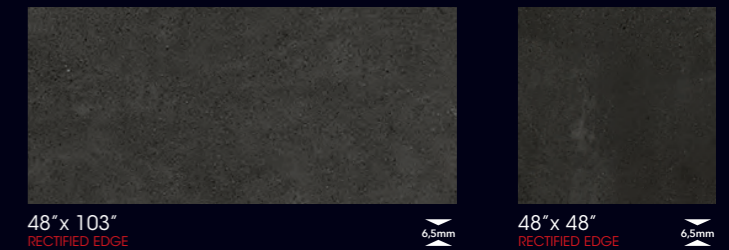


AZUMA N

Standard Formats



Gauged Porcelain Slabs





	Technical Specifications	Standard Requirements	Test Results
	Water Absorption UNI EN ISO 10545-03	<0.5%	0.1%
	Breaking Strength UNI EN ISO 10545-04	Minimum: 1300 N	1800-2400 N
	Modulus of Rupture UNI EN ISO 10545-04	Minimum: 35 N/mm ²	35-45 N/mm ²
	Shock Resistance UNI EN ISO 10545-05	Suggested Minimum: e > 0,55	e 50,55 Restitution Coefficient
	Resistance to Deep Abrasion UNI EN ISO 10545-06	Maximum: 175 mm ³	110-130 mm ³
	Thermal Linear Expansion UNI EN ISO 10545-08	Minimum for Floor Applications: Class 3	27x10.- 6° C
	Thermal Shock Resistance UNI EN ISO 10545-09	Resistant	Resistant
	Moisture Expansion UNI EN ISO 10545-10	As Reported	0,0%
	Frost Resistance UNI EN ISO 10545-12	As Reported	Resistant
	Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products: UB/GB Acids And Alkalis: As Reported	UA ULC-UMC
	Stain Resistance UNI EN ISO 10545-03	Minimum: Class 3	5
PEI	PEI Rating (Scratch Resistance) ASTM C 1027	As Reported	Depends of the color
COF	Static Coefficient of Friction (COF) ASTM C 1028	For Level Interior Spaces Expected to be Walked Upon When wet:> 0.60	DRY: >0,60 WET: >0,60
DCOF	Dynamic Coefficient of Friction (DCOF) ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.42	> 0,42
	Shade Variation Not Available	As Reported	V2
	Thickness Not Available	As Reported	12"x24"-0,35" / 24"x48"-0,45" 48"x48"-0,45 / 24"x24"-0,4
	Number of Screens Not Available	As Reported	12"x24"-31 / 24"x48"-10 / 48"x48"-5 / 24"x24"-20

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2 BROKEN JOINT NOT RECOMMENDED



The data refers to first choice material in the natural version.



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BALTIMORE

FULL BODY PORCELAIN



GRIS



MARENGO



PERLA



TAUPE

PERLA



TAUPE



MARENGO

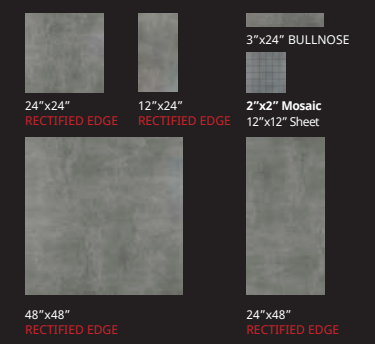


PERLA



TAUPE

GRIS



MARENGO





Technical Specification	Reference Standard	Standard Requirements	Test Results
Water Absorption	UNI EN ISO 10545-03	< 0.5%	According to
Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	According to
Modulus Of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	According to
Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: e > 0.55	According to
Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	According to
Thermal Linear Expansion	UNI EN ISO 10545-08	As Reported	$\alpha \leq 7 \times 10^{-6} / ^\circ\text{C}$
Thermal Shock Expansion	UNI EN ISO 10545-09	Resistant	According to
Moisture Expansion	UNI EN ISO 10545-10	As Reported	-
Frost Resistance	UNI EN ISO 10545-12	As Reported	Resistant
Chemicals Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB/GB Acids and Alkalies: As Reported	GHA
Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	Class 5
PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	PEI IV
Static Coefficient of Friction (COF)	ASTM C 1028	For Level Interior Spaces Expected to be Walked Upon When Wet	DRY \geq 0.60 WET \geq 0.60
Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet	\geq 0.42 According to
Thickness		9 mm	
8"x32" Number of Screens		12	
12"x24" Number of Screens		12	

IMPORTANT
Please note that fixing in a 50% staggered configuration is not recommended. We suggest the following fixing configurations for these ceramic materials:

NO 50% **YES 15%**

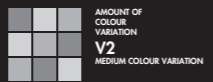
GROUT JOINT, REQUIRED FOR RECTIFIED EDGE TILE
1/2 BROKEN JOINT NOT RECOMMENDED

INSTALLATION TIPS

Recommended
3/16" Grout Joint.

1/3" Overlap should not exceed 33%

Use a leveling system during installation to reducelippage



Bellagio
PORCELAIN





CARPI		
Technical Specifications	Standard Requirements	Test Results
Water Absorption	< 0.5 %	0.2%
Breaking Strength	Minimum: 1300 N	1450 N
Modulus of Rupture	Minimum: 35 N/mm ²	47 N/mm ²
Shock Resistance	Suggested Minimum: e > 0.55	0.87
Resistance to Deep Abrasion	Maximum: 175 mm ²	117 mm ²
Thermal Linear Expansion	Minimum for Floor Applications: Class 3	7.1/7.1
Thermal Shock Resistance	Resistant	Resistant
Moisture Expansion	As Reported	0.1
Frost Resistance	As Reported	Resistant
Chemical Resistance	Domestic Chemical Products: UB / GB Acids and Alkalis: As Reported	A B
Stain Resistance	Minimum: Class 3	5/5/5
PEI Rating (Scratch Resistance)	As Reported	PEI: IV
Dynamic Coefficient of Friction (DCOF)	For Level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	0.47
Shade Variation	As Reported	V2
Thickness	As Reported	9 mm ± 5% ± 0.4 mm
Number of Screens	As Reported	8 (12" x 24")

IMPORTANT

Please note that fixing in a 50% staggered configuration is not recommended.
We suggest the following fixing configurations for these ceramic materials:

<p>GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE</p> <p>NO 50%</p>	<p>1/2 BROKEN JOINT NOT RECOMMENDED</p> <p>YES 15%</p>
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CARPI

Rectified Full-Body Porcelain

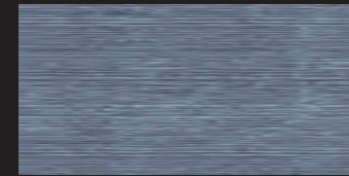


denim



white

CARPI denim



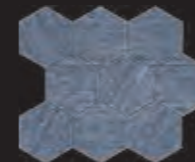
12"x 24"



Bullnose 3"x 24"



2"x 2" Mosaic
12"x 12" Sheet

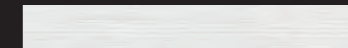


Hexagon Mosaic
11.5"x 14" Sheet
Net Coverage: 0.85 sq/ft

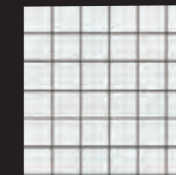
CARPI white



12"x 24"



Bullnose 3"x 24"



2"x 2" Mosaic
12"x 12" Sheet



Hexagon Mosaic
11.5"x 14" Sheet
Net Coverage: 0.85 sq/ft

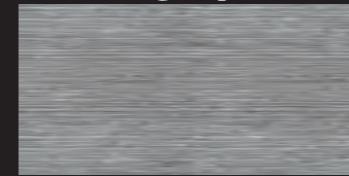


grey



charcoal

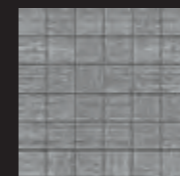
CARPI grey



12"x 24"



Bullnose 3"x 24"



2"x 2" Mosaic
12"x 12" Sheet



Hexagon Mosaic
11.5"x 14" Sheet
Net Coverage: 0.85 sq/ft

CARPI charcoal



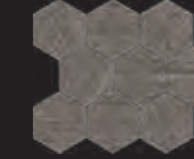
12"x 24"



Bullnose 3"x 24"



2"x 2" Mosaic
12"x 12" Sheet

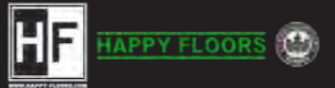


Hexagon Mosaic
11.5"x 14" Sheet
Net Coverage: 0.85 sq/ft



	Technical Specifications	Standard Requirements	Test Results
	Water Absorption UNI EN ISO 10545-03	<0.5%	0.1%
	Breaking Strength UNI EN ISO 10545-04	Minimum: 1300 N	1800-2400 N
	Modulus of Rupture UNI EN ISO 10545-04	Minimum: 35 N/mm ²	35-45 N/mm ²
	Shock Resistance UNI EN ISO 10545-05	Suggested Minimum: e > 0,55	e 50,55 Restitution Coefficient
	Resistance to Deep Abrasion UNI EN ISO 10545-06	Maximum: 175 mm ³	110-130 mm ³
	Thermal Linear Expansion UNI EN ISO 10545-08	Minimum for Floor Applications: Class 3	27x10 ⁻⁶ °C
	Thermal Shock Resistance UNI EN ISO 10545-09	Resistant	Resistant
	Moisture Expansion UNI EN ISO 10545-10	As Reported	0,0%
	Frost Resistance UNI EN ISO 10545-12	As Reported	Resistant
	Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products: UB/GB Acids And Alkalis: As Reported	UA ULC-UMC
	Stain Resistance UNI EN ISO 10545-03	Minimum: Class 3	5
PEI	PEI Rating (Scratch Resistance) ASTM C 1027	As Reported	PEI IV
COF	Static Coefficient of Friction (COF) ASTM C 1028	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.60	DRY: >0,60 WET: >0,60
DCOF	Dynamic Coefficient of Friction (DCOF) ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.42	> 0,42
	Shade Variation Not Available	As Reported	V2
	Thickness Not Available	As Reported	12"x24"-9 / 24"x24"-10
	Number of Screens Not Available	As Reported	12"x24"-24 / 24"x24"-12

1/2 BROKEN JOINT NOT RECOMMENDED



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CIPRIANI

PORCELAIN



ALMOND



ALMOND

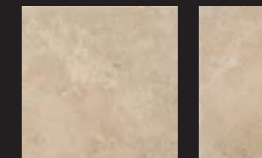


NOCE



ALMOND/NOCE MURO

ALMOND



24" x 24"

12" x 24"

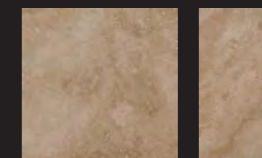


2" x 2" Mosaic
12" x 12" Sheet



3" x 12" Bullnose

NOCE



24" x 24"

12" x 24"



2" x 2" Mosaic
12" x 12" Sheet

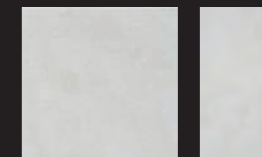


3" x 12" Bullnose



Almond/Noce
12" x 24" Muro

WHITE



24" x 24"

12" x 24"

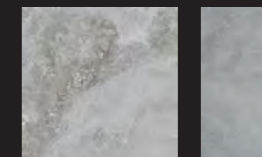


2" x 2" Mosaic
12" x 12" Sheet



3" x 12" Bullnose

GREY



24" x 24"

12" x 24"



2" x 2" Mosaic
12" x 12" Sheet



3" x 12" Bullnose



White/Grey
12" x 24" Muro



WHITE



GREY



WHITE/GREY MURO



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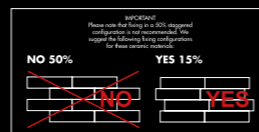
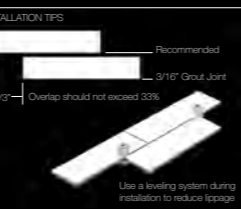
Citrus

Porcelain

TECHNICAL CHARACTERISTICS PORCELAIN STONEWARE EN 14411 G gruppo B1a GL	STANDARD REQUIREMENTS			TEST RESULTS	REFERENCE STANDARD
	7cm ≤ N < 15 cm	N ≥ 15 cm			
	(mm)	(%)	(mm)		
LENGTH AND WIDTH: ADMITTED DEVIATION, IN %, OF THE AVERAGE SIZE OF EACH TILE FROM THE PRODUCTION DIMENSIONS	±0,9 mm	±0,6%	±2mm	±0,15%	
ADMITTED DEVIATION, IN %, OF THE AVERAGE THICKNESS OF EACH TILE FROM THE PRODUCTION DIMENSIONS	±0,5 mm	±5,0%	±0,5 mm	±5%	
MAXIMUM STRAIGHTNESS DEVIATION, IN %, IN RELATION TO THE CORRESPONDING PRODUCTION DIMENSIONS	±0,75 mm	±0,5%	±1,5 mm	±0,1%	ISO 10545-2
MAXIMUM RIGHT-ANGLE DEVIATION, IN %, IN RELATION TO THE CORRESPONDING PRODUCTION DIMENSIONS	±0,75 mm	±0,5%	±2,0 mm	±0,2%	
FLATNESS (CURVING IN THE MIDDLE, CORNER AND WARPING)	±0,75 mm	±0,5%	±2,0 mm	±0,05%	
SURFACE QUALITY	AT LEAST 95% OF THE TILES MUST BE FREE FROM VISIBLE FLAWS.			CONFORMING	
% WATER ABSORPTION	E ≤ 0,5%			E < 0,1%	ISO 10545-3
BREAKING STRENGTH IN N (thickness ≥ 7,5 mm)	1300 min			> 1700	ISO 10545-4
N/mm ² FLEXURAL STRENGTH TEST	35 min			> 40	ISO 10545-4
RESISTANCE TO ABRASION OF GLAZED TILES	SEE MANUFACTURER'S DECLARATION			CLASSE 4	ISO 10545-7
THERMAL SHOCKS RESISTANT				RESISTANT	ISO 10545-9
GLAZE CRAZING RESISTANCE	REQUIRED			RESISTANT	ISO 10545-11
RESISTANCE TO STAINING				CLASSE 4	ISO 10545-14
RESISTANCE TO LOW CONCENTRATIONS OF ACIDS AND ALKALIS	SEE MANUFACTURER'S DECLARATION			GLB (POLISHED GLA (NATURAL)	ISO 10545-13
RESISTENCE TO DOMESTIC CHEMICAL PRODUCTS AND ADDITIVES FOR SWIMMING POOLS	GB min			GA	
FROST RESISTANCE	REQUIRED			RESISTANT	ISO 10545-12
FRICTION COEFFICIENT (SLIPPERINESS)				R ₀ (NATURAL) DIN 51130:2010 Dry/Wet > 0,6 (NATURAL) ASTM C 1028 Wet > 0,42 (NATURAL) DCOF (section 9.6 ANSI A 137.1 2012)	



HAPPY FLOORS



GROUP JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



Citrus

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



BLOSSOM 8"x47"
RECTIFIED EDGE NATURAL
BLOSSOM 8"x47"
RECTIFIED EDGE POLISHED

BLOSSOM 2,75"x24" BULLNOSE NATURAL
BLOSSOM 2,75"x24" BULLNOSE POLISHED



OCEAN 8"x47"
RECTIFIED EDGE NATURAL
OCEAN 8"x47"
RECTIFIED EDGE POLISHED

OCEAN 2,75"x24" BULLNOSE NATURAL
OCEAN 2,75"x24" BULLNOSE POLISHED



AMBER 8"x47"
RECTIFIED EDGE NATURAL
AMBER 8"x47"
RECTIFIED EDGE POLISHED

AMBER 2,75"x24" BULLNOSE NATURAL
AMBER 2,75"x24" BULLNOSE POLISHED



MIDNIGHT 8"x47"
RECTIFIED EDGE NATURAL
MIDNIGHT 8"x47"
RECTIFIED EDGE POLISHED

MIDNIGHT 2,75"x24" BULLNOSE NATURAL
MIDNIGHT 2,75"x24" BULLNOSE POLISHED



BLOSSOM 12"x24" RECTIFIED EDGE
NATURAL
BLOSSOM 12"x24" RECTIFIED EDGE
POLISHED



OCEAN 12"x24" RECTIFIED EDGE
NATURAL
OCEAN 12"x24" RECTIFIED EDGE
POLISHED



AMBER 12"x24" RECTIFIED EDGE
NATURAL
AMBER 12"x24" RECTIFIED EDGE
POLISHED



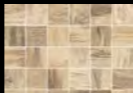
MIDNIGHT 12"x24" RECTIFIED EDGE
NATURAL
MIDNIGHT 12"x24" RECTIFIED EDGE
POLISHED



BLOSSOM 2"x2" MOSAIC
(12x12 SHEET) NATURAL
BLOSSOM 2"x2" MOSAIC
(12x12 SHEET) POLISHED



OCEAN 2"x2" MOSAIC
(12x12 SHEET) NATURAL
OCEAN 2"x2" MOSAIC
(12x12 SHEET) POLISHED



AMBER 2"x2" MOSAIC
(12x12 SHEET) NATURAL
AMBER 2"x2" MOSAIC
(12x12 SHEET) POLISHED



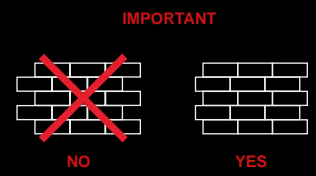
MIDNIGHT 2"x2" MOSAIC
(12x12 SHEET) NATURAL
MIDNIGHT 2"x2" MOSAIC
(12x12 SHEET) POLISHED





Standards	Required Value	Avg. Value
 ISO 10545 / 3 Water Absorption	Grupo B1 A / E < 0,5%	Meets requirements
 ISO 10545 / 4 Modulus of Rupture	> 1300 N	Meets requirements
 ISO 10545 / 5 Bending strength	> 35 N/mm ²	Meets requirements
 ISO 10545 / 7 Resistance to abrasion (PEI)	Between I - V	White / Grey IV Graphite III
 ISO 10545 / 12 Frost resistance	Resistant	Meets requirements
 ISO 10545 / 13 Chemical resistance	Min. GB / GLB	Meets requirements
 ANSI A 137.1-2012 DCOF Slip resistance	Wet ≥ 0.42	Wet ≥ 0.42
 ANSI A 137.1-2012 SCOF Slip resistance	Wet ≥ 0.60 Dry ≥ 0.70	Wet ≥ 0.60 Dry ≥ 0.70

1/2 BROKEN JOINT NOT RECOMMENDED.
MANUFACTURE RECOMMENDS 1/3 OR
LESS STAGGERED SPACING



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CONTEMPO
PORCELAIN

CONTEMPO

PORCELAIN

CONTEMPO GRAPHITE



15" x 30"
Rectified Edge



12" x 24"
Rectified Edge



MOSAIC 1.25" x 4"
(12"x12" sheet)



BULLNOSE 3"x 12"

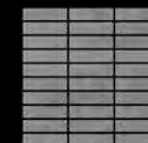
CONTEMPO GREY



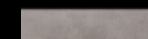
15" x 30"
Rectified Edge



12" x 24"
Rectified Edge



MOSAIC 1.25" x 4"
(12"x12" sheet)



BULLNOSE 3"x 12"

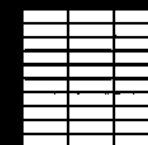
CONTEMPO WHITE



15" x 30"
Rectified Edge



12" x 24"
Rectified Edge



MOSAIC 1.25" x 4"
(12"x12" sheet)



BULLNOSE 3"x 12"

CONTEMPO GRAPHITE

CONTEMPO GREY





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CRASH

RECTIFIED PORCELAIN

CRASH

RECTIFIED PORCELAIN

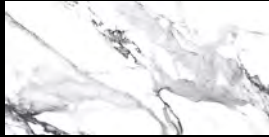
Blanco Natural & Polished



36" x 72"



48" x 48"



24" x 48"



30" x 30"



24" x 24"



12" x 24"



3" x 24" Bullnose



2" x 2" Mosaic
12" x 12" Sheet



Hexagon Mosaic
10" x 14" Sheet
Net Coverage:
0.80 sqft.



Basketweave Mosaic
12" x 12" Sheet

Beige Natural & Polished



36" x 72"



48" x 48"



24" x 48"



30" x 30"



24" x 24"



12" x 24"



3" x 24" Bullnose



2" x 2" Mosaic
12" x 12" Sheet



Hexagon Mosaic
10" x 14" Sheet
Net Coverage:
0.80 sqft.

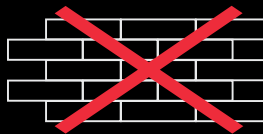


Basketweave Mosaic
12" x 12" Sheet

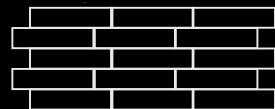


CRASH				
	Technical Specifications	Reference Standard	Standard Requirements	Test Results
	Water Absorption	UNI EN ISO 10545-03	< 0.5 %	Meets requirements
	Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	>1300 N
	Modulus of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	> 35 N/mm ²
	Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: e > 0.55	> 0.55
	Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	175 mm ³
	Thermal Shock Resistance	UNI EN ISO 10545-09	Resistant	Meets requirements
	Frost Resistance	UNI EN ISO 10545-12	As Reported	Meets requirements
	Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB / GB	GB
			Acids and Alkalis: As Reported	GA
	Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	Class 3
PEI	PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	IV
DCOF	Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	Natural: >0.42 Polished: <0.42
V.2	Shade Variation	Not Available	As Reported	V.2
	Thickness	Not Available	As Reported	12x24 - 10mm 30x30 - 10.5mm 24x48 - 10.5mm
	Number of Screens	Not Available	As Reported	12x24 - 56 30x30 - 28 24x48 - 14

1/2 BROKEN JOINT NOT RECOMMENDED

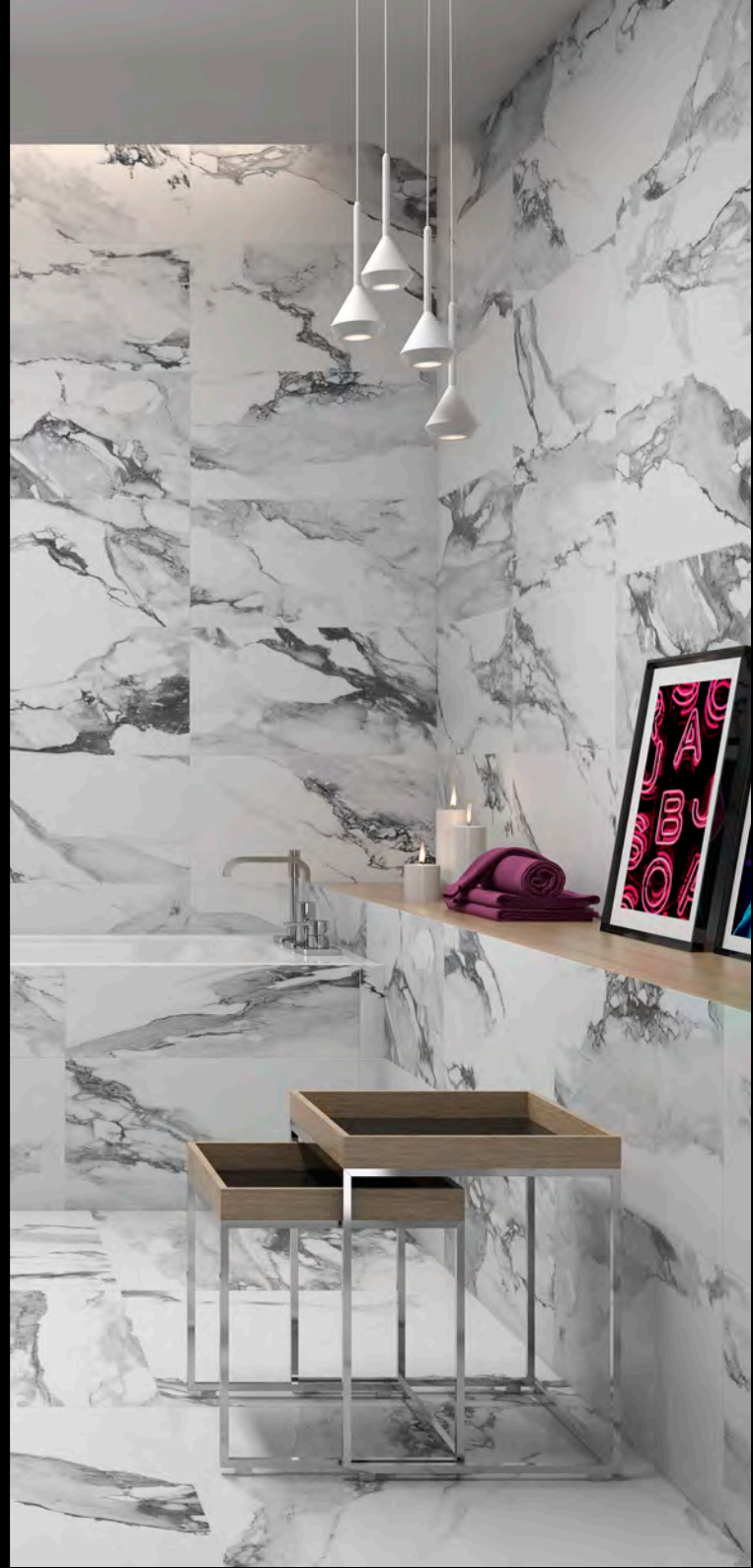


MANUFACTURER RECOMMENDS 1/3 OR LESS STAGGERED SPACING



HAPPY FLOORS





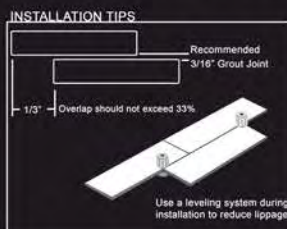


technical characteristics

technical characteristic	reference standard	required values	CYPRESS producer's values
water absorption (E)	ISO 10545-3	≤ 0.5%	according to
breaking strength (S)	ISO 10545-4	spessore ≥ 7,5 mm ≥ 1300 N spessore < 7,5 mm ≥ 700 N	according to
bending strength (R)	ISO 10545-4	≥ 35 N/mm ²	according to
resistance to abrasion PEI	ISO 10545-7	according to producer's	PEI IV
thermal shock resistance	ISO 10545-8	no sample must show visible defects	according to
foot resistance	ISO 10545-12	resistant	resistant
static coefficient of friction	ASTM C1028		DRY = 0,49 WET = 0,60
dynamic coefficient of friction	ASTM C1028		0,59
size characteristics	ISO 10545-2	length and width ± 0,6% thickness ± 0,6% weight ± 0,6% area ± 0,5%	according to
linear thermal expansion coefficient	ISO 10545-4	test method available	≤ 7 x 10 ⁻⁶ °C
resistance to chemicals	ISO 10545-13	according to producer's	GHA
stain resistance	ISO 10545-14	Classe ≥ 3	Classe 5

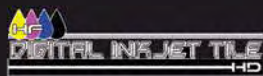
Following the EN 14411 (ex ISO 13006) norms and test cases UNI ISO 10545 appendix G for ceramic tiles dry pressed with low water absorption E ≤ 0,5% group IIIa.

1/2 BROKEN JOINT NOT RECOMMENDED.
MANUFACTURER RECOMMENDS 1/3
OR LESS STAGGERED SPACING.



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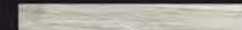


CYPRESS
PORCELAIN





CYPRESS MIST 9"x48"



CYPRESS MIST BULLNOSE 3"x24"



2"x2" CYPRESS MIST MOSAIC (12"x12" SHEET)



CYPRESS NATURAL 9"x48"



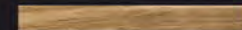
CYPRESS NATURAL BULLNOSE 3"x24"



2"x2" CYPRESS NATURAL MOSAIC (12"x12" SHEET)



CYPRESS BRONZE 9"x48"



CYPRESS BRONZE BULLNOSE 3"x24"



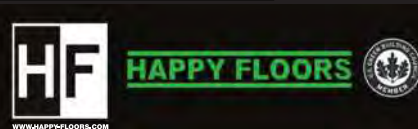
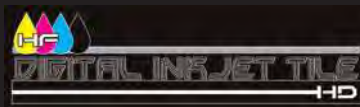
2"x2" CYPRESS BRONZE MOSAIC (12"x12" SHEET)



DOLOMITE

Porcelain

TECHNICAL CHARACTERISTICS PORCELAIN STONEWARE EN 14411 G gruppo B1a GL		STANDARD REQUIREMENTS			TEST RESULTS	REFERENCE STANDARD
		7cm ≤ N < 15 cm		N ≥ 15 cm		
		(mm)	(%)	(mm)		
	LENGTH AND WIDTH: ADMITTED DEVIATION, IN %, OF THE AVERAGE SIZE OF EACH TILE FROM THE PRODUCTION DIMENSIONS	±0,9 mm	±0,6%	±2 mm	±0,15%	ISO 10545-2
	ADMITTED DEVIATION, IN %, OF THE AVERAGE THICKNESS OF EACH TILE FROM THE PRODUCTION DIMENSIONS	±0,5 mm	±5,0%	±0,5 mm	±5%	
	MAXIMUM STRAIGHTNESS DEVIATION, IN %, IN RELATION TO THE CORRESPONDING PRODUCTION DIMENSIONS	±0,75 mm	±0,5%	±1,5 mm	±0,1%	
	MAXIMUM RIGHT-ANGLE DEVIATION, IN %, IN RELATION TO THE CORRESPONDING PRODUCTION DIMENSIONS	±0,75 mm	±0,5%	±2,0 mm	±0,2%	
	FLATNESS (CURVING IN THE MIDDLE, CORNER AND WARPING)	±0,75 mm	±0,5%	±2,0 mm	±0,35%	
SURFACE QUALITY		AT LEAST 95% OF THE TILES MUST BE FREE FROM VISIBLE FLAWS.			CONFORMING	
	% WATER ABSORPTION	E≤0,5%			E<0,1%	ISO 10545-3
	BREAKING STRENGTH IN N (thickness ± 7,5 mm)	1300 min			>1700	ISO 10545-4
	N/mm ² FLEXURAL STRENGTH TEST	35 min			>40	ISO 10545-4
	RESISTANCE TO ABRASION OF GLAZED TILES	SEE MANUFACTURER'S DECLARATION			BIANCO CLASSE 4 BEIGE CLASSE 4	ISO 10545-7
	THERMAL SHOCKS RESISTANT	-			RÉSISTANT	ISO 10545-9
	GLAZE CRAZING RESISTANCE	REQUIRED			RÉSISTANT	ISO 10545-11
	RESISTANCE TO STAINING	-			CLASSE 4	ISO 10545-14
	RESISTANCE TO LOW CONCENTRATIONS OF ACIDS AND ALKALIS.	SEE MANUFACTURER'S DECLARATION			GLB (POLISHED) GLA (NATURAL)	ISO 10545-13
	RESISTANCE TO DOMESTIC CHEMICAL PRODUCTS AND ADDITIVES FOR SWIMMING POOLS	GB min			GA	
	FROST RESISTANCE	REQUIRED			RÉSISTANT	ISO 10545-12
	FRICTION COEFFICIENT (SLIPPERINESS)				R9 (NATURAL)	DIN 51130:2010
					Dry/Wet >0,6 (NATURAL)	ASTM C 1028
					Wet >0,42 (NATURAL)	DCOF (section 9.6 ANSI A 137.1 2012)

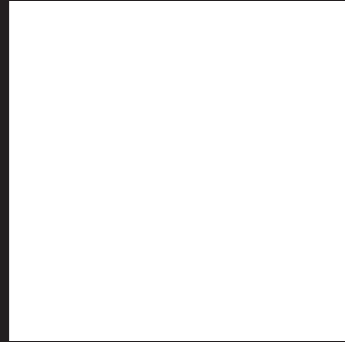


DOLOMITE

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



WHITE 16"x32"
RECTIFIED EDGE NATURAL
WHITE 16"x32"
RECTIFIED EDGE
POLISHED



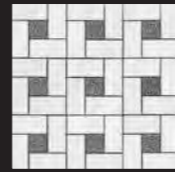
WHITE 24"x24" RECTIFIED EDGE
NATURAL
WHITE 24"x24" RECTIFIED EDGE
POLISHED



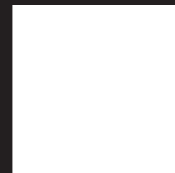
WHITE 12"x24"
RECTIFIED EDGE
NATURAL
WHITE 12"x24"
RECTIFIED EDGE
POLISHED



WHITE 3,2"x24" BULLNOSE NATURAL
WHITE 3,2"x24" BULLNOSE POLISHED



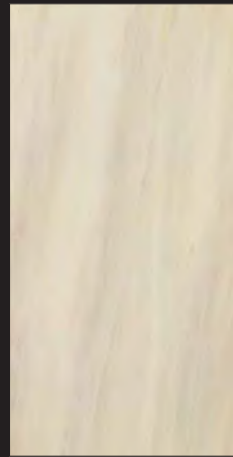
WHITE 12"x12" SHEET
PINWHEEL DECO
MOSAIC POLISHED



WHITE 12"x12" SHEET
1"x1" NATURAL MOSAIC



3D HEX MOSAIC 7"x12"
SHEET WHITE POLISHED



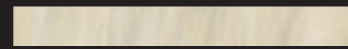
BEIGE 16"x32"
RECTIFIED EDGE NATURAL
BEIGE 16"x32"
RECTIFIED EDGE
POLISHED



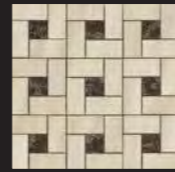
BEIGE 24"x24" RECTIFIED EDGE
NATURAL
BEIGE 24"x24" RECTIFIED EDGE
POLISHED



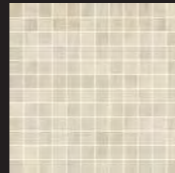
BEIGE 12"x24"
RECTIFIED EDGE
NATURAL
BEIGE 12"x24"
RECTIFIED EDGE
POLISHED



BEIGE 3,2"x24" BULLNOSE NATURAL
BEIGE 3,2"x24" BULLNOSE POLISHED



BEIGE 12"x12" SHEET
PINWHEEL DECO
MOSAIC POLISHED



BEIGE 12"x12" SHEET
1"x1" NATURAL MOSAIC



3D HEX MOSAIC 7"x12"
SHEET BEIGE POLISHED





ELEGANCE			
Tecnical Specifications	Reference Standard	Standard Requirements	Test Results
Water Absorption	UNI EN ISO 10545-03	≤ 0.5 %	≤ 0.5 %
Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	3164 N
Modulus of Rupture	UNI EN ISO 10545-04	Minimum: >35 N/mm ²	48N/mm ²
Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: < 35 N/mm ²	Resist
Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum 150 mm ³	Max. 150 mm ³
Thermal Linear Expansion	UNI EN ISO 10545-07	Minimum for Floor Applications: Class 3	Resist
Thermal Shock Resistance	UNI EN ISO 10545-09	Resistant	Resist
Moisture Expansion	UNI EN ISO 10545-10	As Reported	0,1 mm/m
Frost Resistance	UNI EN ISO 10545-12	As Reported	Resist
Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB / GB Acids and Alkalis: As Reported	GA GLA
Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	Min. Class 3 (Nogal Class 2)
PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	IV
Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For level Interior Spaces Expected to be Walked Upon When Wet	0,57
Shade Variation	Not Available	As Reported	V2
Thickness	Not Available	As Reported	11,2 mm.
Number of Screens	Not Available	As Reported	14

1/2 BROKEN JOINT NOT RECOMMENDED. MANUFACTURER RECOMMENDS 1/3 OR LESS STAGGERED SPACING

IMPORTANT

Please note that fixing in a 50% staggered configuration is not recommended. We suggest the following fixing configurations for these ceramic materials:

NO 50%

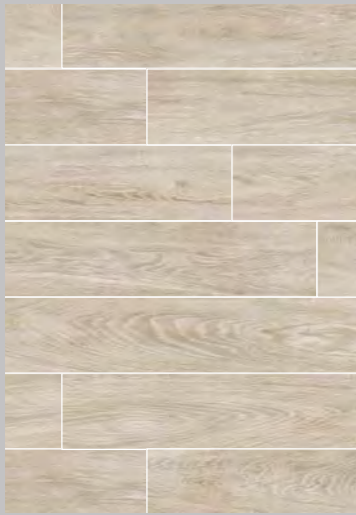
YES 15%



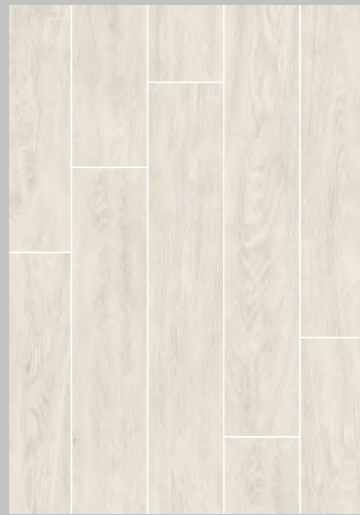
Elegance

PORCELAIN





Natural



White



Roble



Silver



Nogal



Grey



Natural 8"x 45" RECTIFIED EDGE



Roble 8"x 45" RECTIFIED EDGE



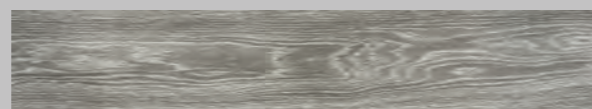
Nogal 8"x 45" RECTIFIED EDGE



White 8"x 45" RECTIFIED EDGE



Silver 8"x 45" RECTIFIED EDGE



Grey 8"x 45" RECTIFIED EDGE



4"x 22.5"

Bullnose Available in all colors



Natural



White



Roble



Silver



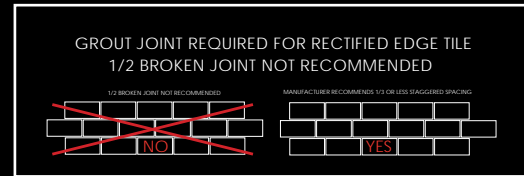
Nogal



Grey



	Technical Specifications	Standard Requirements	Test Results
	Water Absorption UNI EN ISO 10545-03	<0.5%	0.1%
	Breaking Strength UNI EN ISO 10545-04	Minimum: 1300 N	1600-2400 N
	Modulus of Rupture UNI EN ISO 10545-04	Minimum: 35 N/mm ²	35-45 N/mm ²
	Shock Resistance UNI EN ISO 10545-05	Suggested Minimum: e > 0,55	e 50,55 Restitution Coefficient
	Resistance to Deep Abrasion UNI EN ISO 10545-06	Maximum: 175 mm ³	110-130 mm ³
	Thermal Linear Expansion UNI EN ISO 10545-08 n	Minimum for Floor Applications: Class 3	27x10. - 6°C
	Thermal Shock Resistance UNI EN ISO 10545-09	Resistant	Resistant
	Moisture Expansion UNI EN ISO 10545-10	As Reported	0,0%
	Frost Resistance UNI EN ISO 10545-12	As Reported	Resistant
	Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products: UB/GB Acids And Alkalis: As Reported	UA ULC-UMC
	Stain Resistance UNI EN ISO 10545-03	Minimum: Class 3	5
PEI	PEI Rating (Scratch Resistance) ASTM C 1027	As Reported	PEI IV
COF	Static Coefficient of Friction (COF) ASTM C 1028	For Level Interior Spaces Expec- ted to be Walked Upon When wet: > 0.60	DRY: >0.60 WET: >0.60
DCOF	Dynamic Coefficient of Friction (DCOF) ANSI A137.1	For Level Interior Spaces Expec- ted to be Walked Upon When wet: > 0.42	> 0.42
	Shade Variation Not Available	As Reported	V1
	Thickness Not Available	As Reported	12" x 24" / 24" x 24" - 9,5 mm / 24" x 48" - 10,5 mm 48" x 48" - 10,7 mm
	Number of Screens Not Available	As Reported	12" x 24" - 12 / 24" x 48" - 8 / 24" x 24" - 6 / 48" x 48" - 4



The data refers to first choice material in the natural version



ETNA

RECTIFIED FULL BODY PORCELAIN



GRIS



MARENGO



PERLA



MARFIL

MARFIL



PERLA



MARENGO

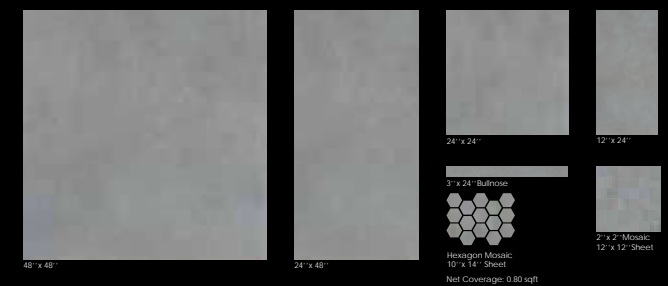


PERLA



MARFIL

GRIS



MARENGO





EXOTIC STONE				
TECHNICAL CHARACTERISTICS	Reference Standard	Standard Requirements	Test Results	
			NATURAL	POLISHED
Water Absorption	UNI EN ISO 10545-03	<0.5%	E<0.1%	
Breaking strength	UNI EN ISO 10545-04	Minimum: 1300N	>1700	
Modulus of Rupture	UNI EN ISO 10545-4	Minimum: 35N/mm ²	>40	
Resistance to abrasion of glazed tiles (PE)	UNI EN ISO 10545-07	See manufacturer's declaration	Lagoon Classe 3 Arctic Classe 4 Fossil Classe 4 Tundra Classe 3	
Thermal Linear Expansion	UNI EN ISO 10545-08	As Reported	7.5 x10 ⁻⁴ /°C	
Thermal Shocks Resistance	UNI EN ISO 10545-09	-	Resistant	
Frost Resistance	UNI EN ISO 10545-12	As Reported	Resistant	
Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products:UB/GB Acids and Alkali: As Reported	GA GLA GLB	
Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	CLASSE 4	CLASSE 3
Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet	>0.42	WET: >0.42
Friction coefficient (slipperiness)	DIN 51130	-	R9	-
Shade Variation	Not Available	As Reported	V3 - V4	
Thickness	UNI EN ISO 10545-02	As Reported	±5%	
Number of Screens	Not Available	As Reported	20x120 (8"x47") 18 screens 30x60 (12"x24") 23 screens	



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Exotic Stone Porcelain



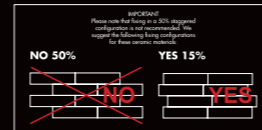
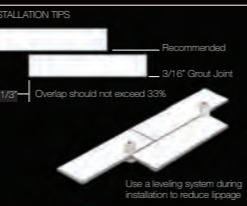
V3 HIGH
HIGH SHADE VARIATION
WITHIN EACH CARTON.



V4 RANDOM
VERY HIGH SHADE VARIATION
WITHIN EACH CARTON.



HAPPY FLOORS



GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



ExoticStone

TUNDRA



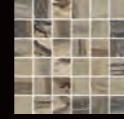
8"x47" Natural **RECTIFIED EDGE**
8"x47" Polished **RECTIFIED EDGE**



2,75"x24" Natural Bullnose
2,75"x24" Polished Bullnose



12"x24" Natural **RECTIFIED EDGE**
12"x24" Polished **RECTIFIED EDGE**



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)



Muretto Mosaic Natural
(12"x12" Sheet)
Muretto Mosaic Polished
(12"x12" Sheet)

FOSSIL



8"x47" Natural **RECTIFIED EDGE**
8"x47" Polished **RECTIFIED EDGE**



2,75"x24" Natural Bullnose
2,75"x24" Polished Bullnose



12"x24" Natural **RECTIFIED EDGE**
12"x24" Polished **RECTIFIED EDGE**



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)

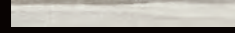


Muretto Mosaic Natural
(12"x12" Sheet)
Muretto Mosaic Polished
(12"x12" Sheet)

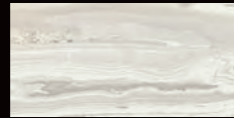
ARCTIC



8"x47" Natural **RECTIFIED EDGE**
8"x47" Polished **RECTIFIED EDGE**



2,75"x24" Natural Bullnose
2,75"x24" Polished Bullnose



12"x24" Natural **RECTIFIED EDGE**
12"x24" Polished **RECTIFIED EDGE**



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)



Muretto Mosaic Natural
(12"x12" Sheet)
Muretto Mosaic Polished
(12"x12" Sheet)

LAGOON



8"x47" Natural **RECTIFIED EDGE**
8"x47" Polished **RECTIFIED EDGE**



2,75"x24" Natural Bullnose
2,75"x24" Polished Bullnose



12"x24" Natural **RECTIFIED EDGE**
12"x24" Polished **RECTIFIED EDGE**



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)



Muretto Mosaic Natural
(12"x12" Sheet)
Muretto Mosaic Polished
(12"x12" Sheet)

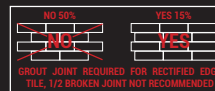
GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2 BROKEN JOINT NOT RECOMMENDED





FOSSIL
RECTIFIED PORCELAIN

Technical Specifications	Reference Standard	Standard Requirements	Test Results
Water Absorption	UNI EN ISO 10545-03	< 0.5%	< 0.5% Bla
Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	≥1300 N
Modulus of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	≥35 N/mm ²
Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: E>0.55	0.81 - 0.85
Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	Not required
Thermal Linear Expansion	UNI EN ISO 10545-08	As reported	5.8*10 ⁻⁶ °C ⁻¹
Thermal Shock Resistance	UNI EN ISO 10545-09	Required	Complies with the standard
Moisture Expansion	UNI EN ISO 10545-10	As reported	<0.1 mm/m
Frost Resistance	UNI EN ISO 10545-12	Required	Complies with the standard
Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: GB Acids and Alkalis: As reported	GA GLA GHA
Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	5
PEI PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	Grey, Pearl, White 4 Blue 3
COF Static Coefficient of Friction (COF)	ASTM C 1028	For Level Interior Spaces Expected to be walked upon when wet >0.60	DRY:>0.60 WET:>0.60
DOOF Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be walked upon when wet >0.42	>0.42
Shade Variation	NOT AVAILABLE	As Reported	V3 MODERATE
Thickness	NOT AVAILABLE	As Reported	24"x48" 10.5mm 12"x24" 10mm
Number of Screens	NOT AVAILABLE	As Reported	24"x48" 12 12"x24" 35



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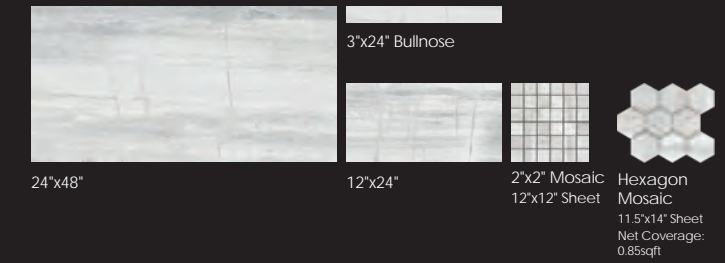
FOSSIL
RECTIFIED PORCELAIN



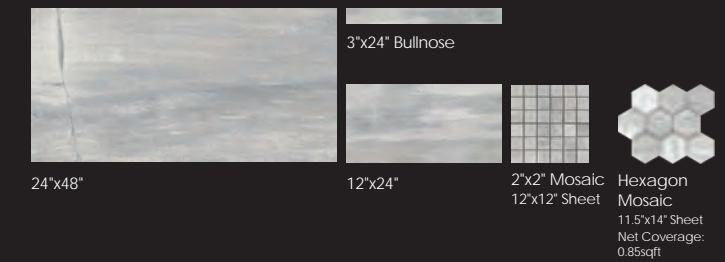
FOSSIL

RECTIFIED PORCELAIN

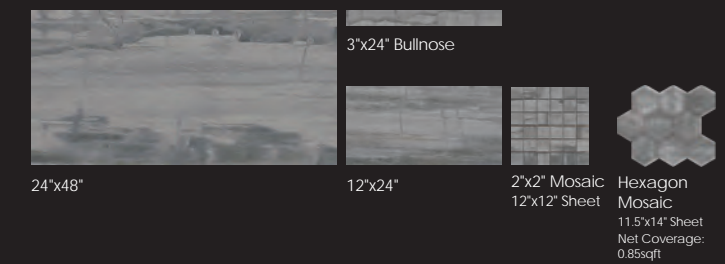
White



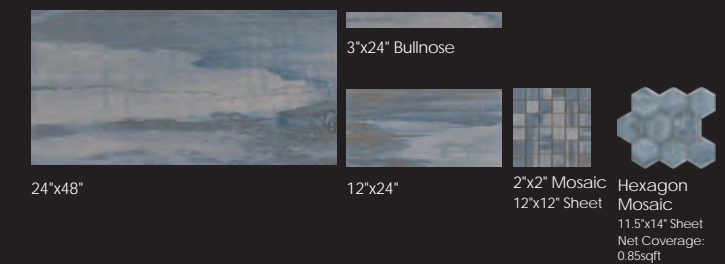
Pearl



Grey



Blue

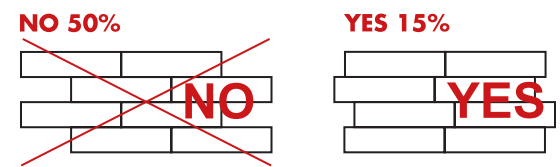


GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE,
1/2 BROKEN JOINT NOT RECOMMENDED



FRENCH QUARTER				
Technical Specifications	Reference Standard	Standard Requirements	Teste Results	
Water Absorption	UNI EN ISO 10545-03	<0.5%	< 0.2%	
Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	≥ 1400 N	
Modulus of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	≥ 37 N/mm ²	
Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: e > 0.55	Complies	
Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	Not Applicable	
Thermal Linear Expansion	UNI EN ISO 10545-08	Minimum for Floor Applications: Classe 3	Complies	
Thermal Shock Resistance	UNI EN ISO 10545-09	Resistant	Resistant	
Moisture Expansion	UNI EN ISO 10545-10	As Reported	< 0.06%	
Frost Resistance	UNI EN ISO 10545-12	As Reported	Resistant	
Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB / GB	GA	
		Acids and Alkalis: As Reported	GLA	
Stain Resistance	UNI EN ISO 10545-14	Minimum: Classe 3	Class 5	
PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	Orleans	IV
			Chartres	V
			Bienville	IV
			Toulouse	IV
DCOF	Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	> 0.44
V4	Shade Variation	Not Available	As Reported	V4
	Thickness	Not Available	As Reported	8 mm
	Number of Screens	Not Available	As Reported	24 (12"×24")

GROUP JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2 BROKEN JOINT NOT RECOMMENDED



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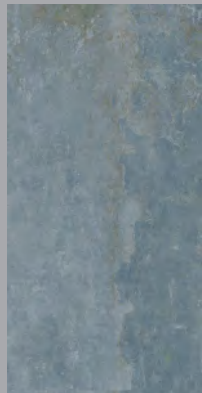


FRENCH QUARTER

Porcelain



ORLEANS



12"x24"



3"x10" Brick



3"x12" Bullnose



2"x2" Mosaic
12"x12" Sheet

TOULOUSE



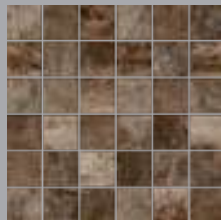
12"x24"



3"x10" Brick

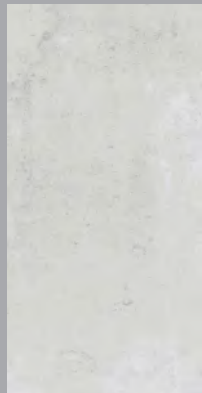


3"x12" Bullnose

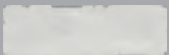


2"x2" Mosaic
12"x12" Sheet

CHARTRES



12"x24"



3"x10" Brick



3"x12" Bullnose



2"x2" Mosaic
12"x12" Sheet

BIENVILLE



12"x24"



3"x10" Brick



3"x12" Bullnose



2"x2" Mosaic
12"x12" Sheet



ORLEANS



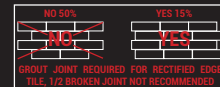
CHARTRES & TOULOUSE



BIENVILLE

MOJAVE

TECHNICAL SPECIFICATIONS	STANDARD REQUIREMENTS	TEST RESULTS
WATER ABSORPTION UNI EN ISO 10545-03	< 20%	14 %
BREAKING STRENGTH UNI EN ISO 10545-04	MINIMUM 1110 N	>600 N
MODULUS OF RUPTURE UNI EN ISO 10545-04	MINIMUM 30 N/mm ²	12 N/mm ²
THERMAL LINEAR EXPANSION UNI EN ISO 10545-08	AS REPORTED	6,3 · 10 ⁻⁶ /°C
THERMAL SHOCK RESISTANCE UNI EN ISO 10545-09	RESISTANT	RESISTANT
MOISTURE EXPANSION UNI EN ISO 10545-10	AS REPORTED	0,3 mm/m
FROST RESISTANCE UNI EN ISO 10545-12	AS REPORTED	NOT REQUIRED
CHEMICAL RESISTANCE UNI EN ISO 10545-13	DOMESTIC CHEMICAL PRODUCTS ACID AND ALKALIS	GLA GHA
STAIN RESISTANCE UNI EN ISO 10545-14	AS REPORTED	5
SHADE VARIATION	AS REPORTED	V1 UNIFORM



Destonificación
Shade variation



HAPPY FLOORS



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GLACIAR

WHITE BODY CERAMIC WALL TILE



GLACIAR

WHITE BODY CERAMIC WALL TILE

SOLID WHITE
12"x36" MATTE
RECTIFIED EDGE

SOLID WHITE
12"x36" GLOSSY
RECTIFIED EDGE

NUDE
12"x36" MATTE
RECTIFIED EDGE

NUDE
12"x36" GLOSSY
RECTIFIED EDGE

MOJAVE
12"x36" MATTE
RECTIFIED EDGE

MOJAVE
12"x36" GLOSSY
RECTIFIED EDGE

WAVE
12"x36" MATTE
RECTIFIED EDGE

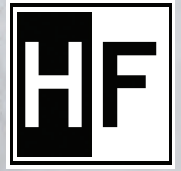
WAVE
12"x36" GLOSSY
RECTIFIED EDGE

GROUT JOINT REQUIRED
FOR RECTIFIED EDGE TILE,
1/2 BROKEN JOINT
NOT RECOMMENDED





Technical Specifications Reference Standard	Test Results
Water Absorption UNI EN ISO 10545-03	0.2% Bla
Breaking Strength UNI EN ISO 10545-04	2470 N
Modulus of Rupture UNI EN ISO 10545-04	44 N/mm ²
Shock Resistance UNI EN ISO 10545-05	Not required
Resistance to Deep Abrasion UNI EN ISO 10545-06	Not required
Thermal Linear Expansion UNI EN ISO 10545-08	Not required
Thermal Shock Resistance UNI EN ISO 10545-09	6,3 · 10 ⁻⁶ /°C
Moisture Expansion UNI EN ISO 10545-10	Complies with the standard
Frost Resistance UNI EN ISO 10545-12	Complies with the standard
Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products: GA Acids and Alkalis: GLA-GHA
Stain Resistance UNI EN ISO 10545-14	CLASS 5
PEI ASTM C 1027	Glacier 4 - Pearl, Anthracite, Taupe 3
COF ASTM C 1028	DRY: >0.60 WET: >0.60
DCOF ANSI A137.1	>0.62
Shade Variation Not Available	V2 MEDIUM
Thickness Not Available	24"x48" 0.41" 12"x24" 0.40" 24"x24" 0.40"
Number of Screens Not Available	24"x48" 5 Scrs 12"x24" 20 Scrs 24"x24" 10 Scrs



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IRON

PORCELAIN



IMPORTANT
Please note that fixing in a 50% staggered configuration is not recommended. We suggest the follow:

NO 50%

YES 15%

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE, 1/2 BROKEN JOINT NOT RECOMMENDED

INSTALLATION TIPS

Recommended 3/16" Grout Joint

1/3 - Overlap should not exceed 33%

Use a Leveling system during installation to reduce lippage



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GLACIER

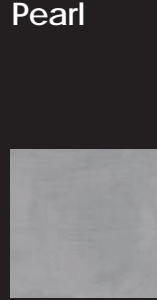
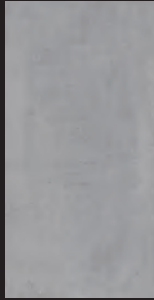
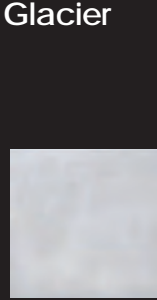
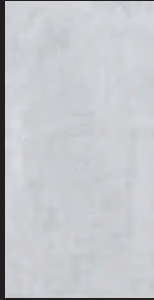
ANTHRACITE

IRON

PORCELAIN

Glacier

Pearl

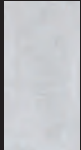


24"x48"
RECTIFIED EDGE

24"x24"
RECTIFIED EDGE

24"x48"
RECTIFIED EDGE

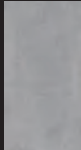
24"x24"
RECTIFIED EDGE



3"x24" Bullnose



2"x2" Mosaic
12"x12" Sheet



3"x24" Bullnose



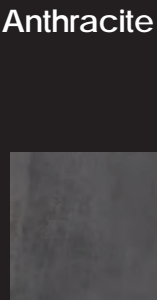
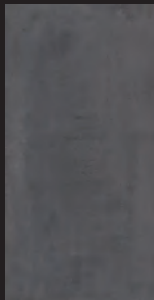
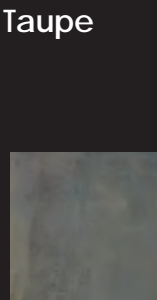
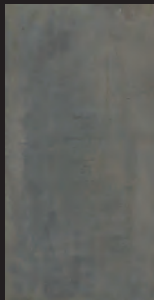
2"x2" Mosaic
12"x12" Sheet

12"x24"
RECTIFIED EDGE

12"x24"
RECTIFIED EDGE

Taupe

Anthracite

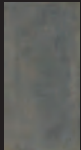


24"x48"
RECTIFIED EDGE

24"x24"
RECTIFIED EDGE

24"x48"
RECTIFIED EDGE

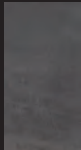
24"x24"
RECTIFIED EDGE



3"x24" Bullnose



2"x2" Mosaic
12"x12" Sheet



3"x24" Bullnose



2"x2" Mosaic
12"x12" Sheet

12"x24"
RECTIFIED EDGE

12"x24"
RECTIFIED EDGE



PEARL

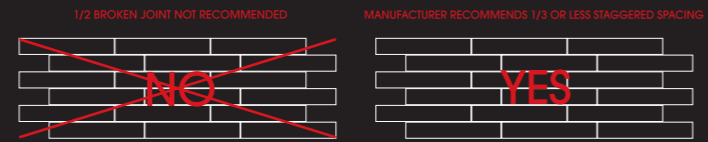


TAUPE

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE,
1/2" BROKEN JOINT NOT RECOMMENDED



KIWI				
	Technical Specifications	Reference Standard	Standard Requirements	Test Results
	Water Absorption	UNI EN ISO 10545-03	< 0.5 %	In Accordance
	Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	In Accordance
	Modulus of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	In Accordance
	Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: e > 0.55	Resistant
	Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	In Accordance
	Thermal Shock Resistance	UNI EN ISO 10545-09	Resistant	In Accordance
	Frost Resistance	UNI EN ISO 10545-12	As Reported	Resistant
	Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB / GB Acids and Alkalis: As Reported	In Accordance
	Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	In Accordance
PEI	PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	III: Nero, IV: Blu, Grigio, Marrone, Bianco, Miele.
DCOF	Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	6" x 24" Grip / Sanded Finish = 0.61 8" x 48" = 0.54
V2	Shade Variation	Not Available	As Reported	V2
	Thickness	Not Available	As Reported	8" x 48" = 19.6 mm 9,6
	Number of Screens	Not Available	As Reported	8" x 48" = 19 6" x 24" = 38



KIWI PORCELAIN



BLU



NERO



GRIGIO

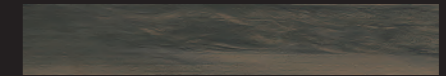


MARRONE



BIANCO

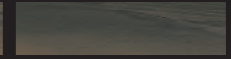
MARRONE



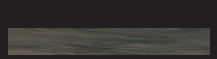
8" x 48"



6" x 24"

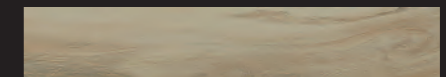


6" x 24" Grip / Sanded Finish

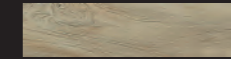


3" x 24" Bullnose

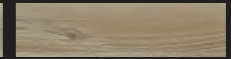
MIELE



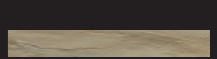
8" x 48"



6" x 24"

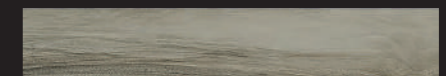


6" x 24" Grip / Sanded Finish

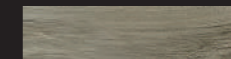


3" x 24" Bullnose

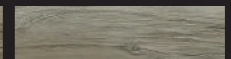
GRIGIO



8" x 48"



6" x 24"



6" x 24" Grip / Sanded Finish

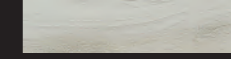


3" x 24" Bullnose

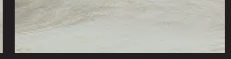
BIANCO



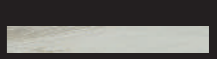
8" x 48"



6" x 24"

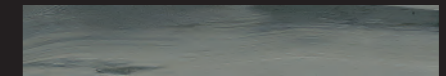


6" x 24" Grip / Sanded Finish



3" x 24" Bullnose

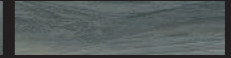
NERO



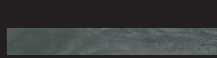
8" x 48"



6" x 24"



6" x 24" Grip / Sanded Finish

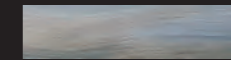


3" x 24" Bullnose

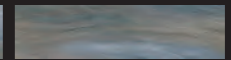
BLU



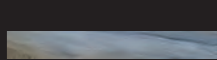
8" x 48"



6" x 24"



6" x 24" Grip / Sanded Finish



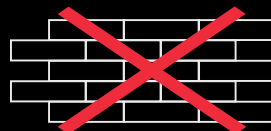
3" x 24" Bullnose



KURSAAL PURE

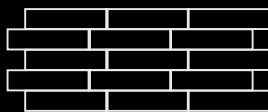
KURSAAL			
Technical Specifications	Reference Standard	Standard Requirements	Test Results
Water Absorption	UNI EN ISO 10545-03	< 0.5 %	Meets requirements
Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	2500 N
Modulus of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	> 40 N/mm ²
Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: e > 0.55	> 0.70
Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	175 mm ³
Thermal Shock Resistance	UNI EN ISO 10545-09	Resistant	Meets requirements
Frost Resistance	UNI EN ISO 10545-12	As Reported	Meets requirements
Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB / GB Acids and Alkalis: As Reported	GLA / GHA GA
Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	Class 3
PEI Rating (Scotch Resistance)	ASTM C 1027	As Reported	IV
Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	0.60
Shade Variation	Not Available	As Reported	V.2
Thickness	Not Available	As Reported	10.5
Number of Screens	Not Available	As Reported	32

1/2 BROKEN JOINT NOT RECOMMENDED



NO

MANUFACTURE RECOMMENDS 1/3 OR LESS STAGGERED SPACING



YES



HAPPY FLOORS



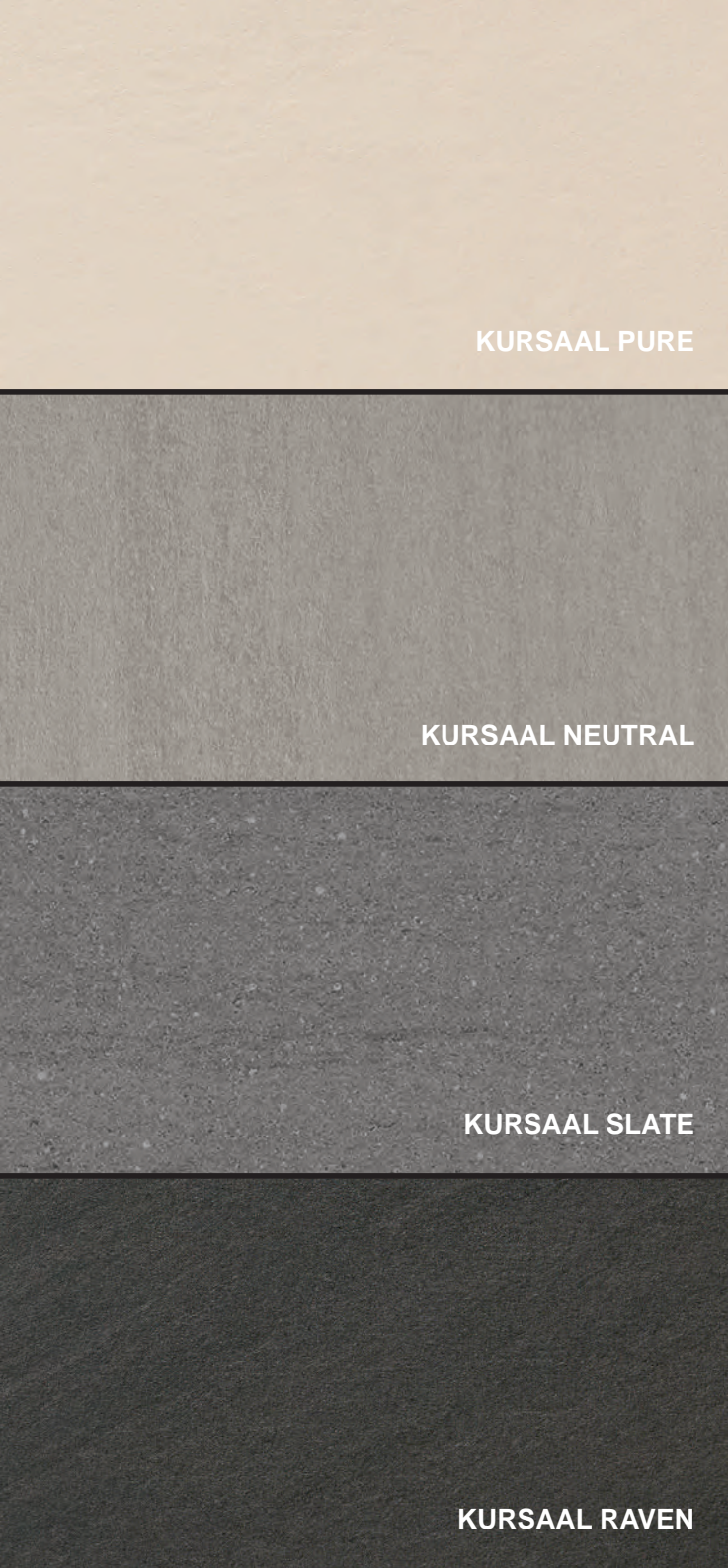
MADE IN SPAIN



KURSAAL
TECHNICAL PORCELAIN



KURSAAL NEUTRAL



KURSAAL PURE

KURSAAL NEUTRAL

KURSAAL SLATE

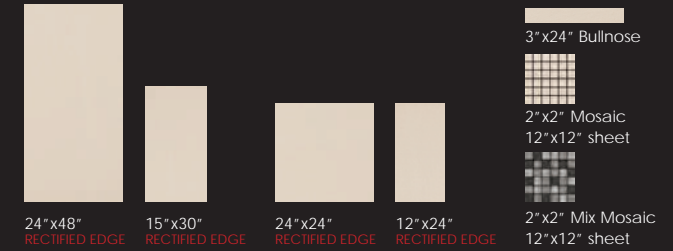
KURSAAL RAVEN



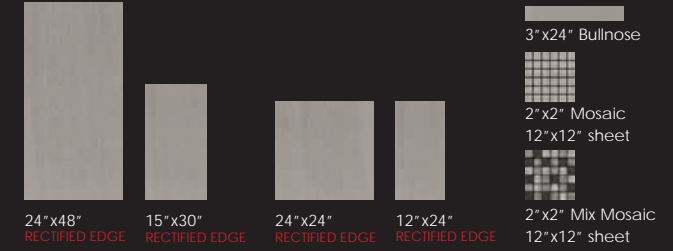
KURSAAL RAVEN

KURSAAL
TECHNICAL PORCELAIN

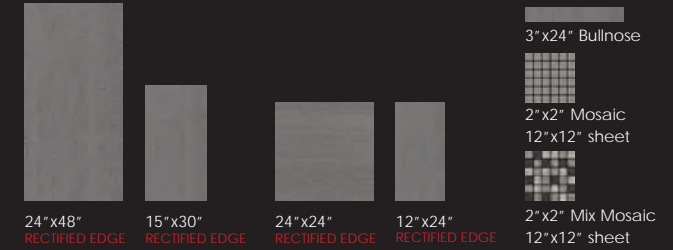
PURE



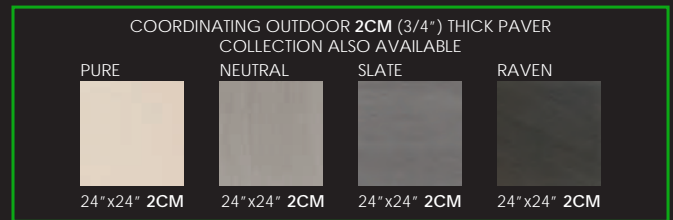
NEUTRAL



SLATE



RAVEN





	Technical characteristics AZUMA (Thickness 03")	Typical Values	Expected Limit Values
	Water Absorption UNI EN ISO 10545-03	< = 0,5%	< = 0,5% UNI EN 14411 G
	Breaking strenght UNI EN ISO 10545-04	> 1300N	1300 N min UNI EN 14411 G
	Modulus of rupture UNI EN ISO 10545-04	> 35 N/mm²	35 N/mm² UNI EN 14411 G
	Shock resistance UNI EN ISO 10545-05	e > 0,55 Restitution coefficient	Available test method UNI EN 14411 G
	Resistance to deep abrasion UNI EN ISO 10545-06	< = 175 mm³	<140 mm³ max UNI EN 14411 G
	Linear thermal expansion UNI EN ISO 10545-08	7,1 (10-6° C-1)	Available test method UNI EN 14411 G
	Thermal shock resistance UNI EN ISO 10545-06	Resistant	Available test method UNI EN 14411 G
	Determination of moisture expansion UNI EN ISO 10545-10	≤ 0,06%	Available test method UNI EN 14411 G
	Frost resistance UNI EN ISO 10545-12	Resistant	Required UNI EN 14411 G
	Chemical resistance UNI EN ISO 10545-13	UA	UB Min. - UNI EN 14411 G
		ULC-UHC	From ULA to ULC From UHA to UHC
	Slip resistance DIN 51130	R 9	From R9 to R13 BGR 181
	Slip resistance barfoot DIN 51097	A	Available test method UNI EN 14411 G
DCOF	Dynamic coefficient of friction D. C.O.F. ANSI A 137.1	≥ 0,42	
	Shade variation	Medium	
	Thickness	10 mm	
	Number of Screens	30"x60" 46 different screens 30"x30" 23 different screens 12"x24" 23 different screens	

**GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE.
½ BROKEN JOINT NOT RECOMMENDED**

1/2 BROKEN JOINT NOT RECOMMENDED



MANUFACTURER RECOMMENDS
1/3 OR LESS STAGGERED SPACING



HAPPY FLOORS



The data refers to first choice material in the natural version.



LIME-ROCK

RECTIFIED FULL BODY PORCELAIN

LIME-ROCK A

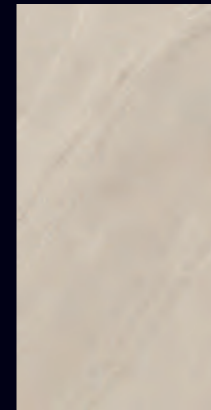


LIME-ROCK A

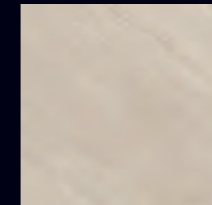


LIME-ROCK W

LIME-ROCK A



30"x 60" 10mm



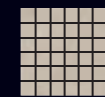
30"x 30" 10mm



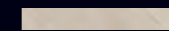
12"x 24" 10mm



Herringbone Mosaic
11"x13" Sheet
Net Coverage: 0.97 sqft

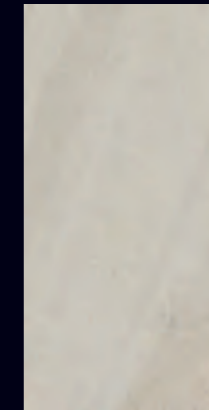


2"x 2" Mosaic
(12"x12" Sheet) 10mm

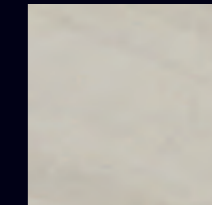


3"x 24" Bullnose

LIME-ROCK W



30"x 60" 10mm



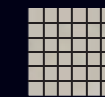
30"x 30" 10mm



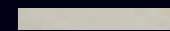
12"x 24" 10mm



Herringbone Mosaic
11"x13" Sheet
Net Coverage: 0.97 sqft



2"x 2" Mosaic
(12"x12" Sheet) 10mm



3"x 24" Bullnose



LIME-ROCK G

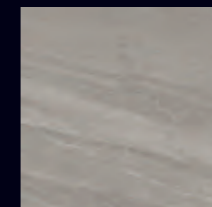


LIME-ROCK N

LIME-ROCK G



30"x 60" 10mm



30"x 30" 10mm



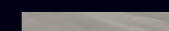
12"x 24" 10mm



Herringbone Mosaic
11"x13" Sheet
Net Coverage: 0.97 sqft

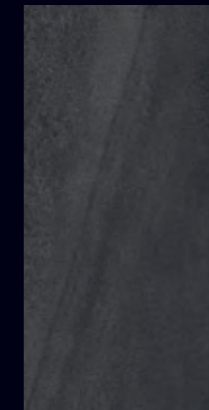


2"x 2" Mosaic
(12"x12" Sheet) 10mm

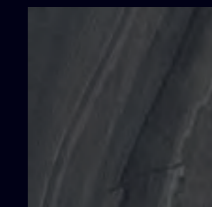


3"x 24" Bullnose

LIME-ROCK N



30"x 60" 10mm



30"x 30" 10mm



12"x 24" 10mm



Herringbone Mosaic
11"x13" Sheet
Net Coverage: 0.97 sqft



2"x 2" Mosaic
(12"x12" Sheet) 10mm



3"x 24" Bullnose



MACAUBAS			Test Results		
TECHNICAL CHARACTERISTICS	Reference Standard	Standard Requirements	Test Results		
			NATURAL	POLISHED	ANTICATO
Water Absorption	UNI EN ISO 10545-03	<0.5%	E<0,1%		
Breaking strength	UNI EN ISO 10545-04	Minimum: 1300N	>1700		
Modulus of Rupture	UNI EN ISO 10545-4	Minimum: 35N/mm ²	>40		
Resistance to abrasion of glazed tiles (PEI)	UNI EN ISO 10545-07	See manufacturer's declaration	Abul Classe 3 Oyster Classe 4 Pearl Classe 4 Twilight Classe 3	Abul Classe 3 Oyster Classe 4 Pearl Classe 4 Twilight Classe 3	Abul Classe 3 Oyster Classe 4 Pearl Classe 4 Twilight Classe 3
Thermal Linear Expansion	UNI EN ISO 10545-08	As Reported	7.5 x10 ⁻⁶ /°C		
Thermal Shocks Resistance	UNI EN ISO 10545-09	As Reported	Resistant		
Frost Resistance	UNI EN ISO 10545-12	As Reported	Resistant		
Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products-UG/GB Acids and Alkalis: As Reported	GA		
Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	GLA-GLB	GLB	GLA-GLB
Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet	: >0.42	WET: >0.42	WET: >0.42
Shade Variation	Not Available	As Reported	V2 Pearl / Oyster V3 Azul / Twilight		
Thickness	UNI EN ISO 10545-02	As Reported	±5%		
Number of Screens	Not Available	As Reported	60x120 (24"x48") 18 screens 30x60 (12"x24") 76 screens		



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MACAUBAS

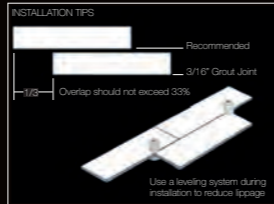
Rectified Porcelain



AMOUNT OF COLOUR VARIATION
V2
MEDIUM COLOR VARIATION



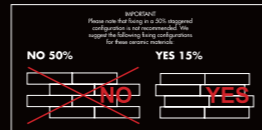
V3
HIGH SHADE VARIATION



HAPPY FLOORS



I-Design
COLLECTION



GRAOUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



MACAUBAS

Rectified Porcelain

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2 BROKEN JOINT NOT RECOMMENDED

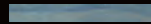
AZUL



24"x48" Natural
24"x48" Polished



12"x24" Natural
12"x24" Anticato
12"x24" Polished



3"x24" Bullnose Natural
3"x24" Bullnose Anticato
3"x24" Bullnose Polished



Hex Mosaic Natural
Hex Mosaic Anticato
Hex Mosaic Polished
(12"x14" Sheet)



2"x2" Mosaic Natural
2"x2" Mosaic Anticato
2"x2" Mosaic Polished
(12"x12" Sheet)

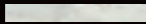
PEARL



24"x48" Natural
24"x48" Polished



12"x24" Natural
12"x24" Anticato
12"x24" Polished



3"x24" Bullnose Natural
3"x24" Bullnose Anticato
3"x24" Bullnose Polished

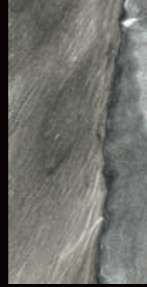


Hex Mosaic Natural
Hex Mosaic Anticato
Hex Mosaic Polished
(12"x14" Sheet)

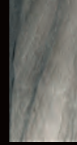


2"x2" Mosaic Natural
2"x2" Mosaic Anticato
2"x2" Mosaic Polished
(12"x12" Sheet)

TWILIGHT



24"x48" Natural
24"x48" Polished



12"x24" Natural
12"x24" Anticato
12"x24" Polished



3"x24" Bullnose Natural
3"x24" Bullnose Anticato
3"x24" Bullnose Polished

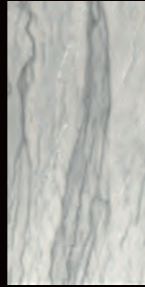


Hex Mosaic Natural
Hex Mosaic Anticato
Hex Mosaic Polished
(12"x14" Sheet)



2"x2" Mosaic Natural
2"x2" Mosaic Anticato
2"x2" Mosaic Polished
(12"x12" Sheet)

OYSTER



24"x48" Natural
24"x48" Polished



12"x24" Natural
12"x24" Anticato
12"x24" Polished



3"x24" Bullnose Natural
3"x24" Bullnose Anticato
3"x24" Bullnose Polished



Hex Mosaic Natural
Hex Mosaic Anticato
Hex Mosaic Polished
(12"x14" Sheet)



2"x2" Mosaic Natural
2"x2" Mosaic Anticato
2"x2" Mosaic Polished
(12"x12" Sheet)

DECORATIVE MOSAIC BLENDS



Rope Deco Mosaic
13"x14.5" Sheet
(Pearl Natural/Azul Polished)
Net Coverage: 0.9 Sqft



Basketweave Deco Mosaic
12"x12" Sheet
(Pearl Natural/Azul Polished)



Pinwheel Deco Mosaic
12"x12" Sheet
(Pearl Natural/Azul Polished)



Rope Deco Mosaic
13"x14.5" Sheet
(Oyster Natural/Twilight Polished)
Net Coverage: 0.9 Sqft



Basketweave Deco Mosaic
12"x12" Sheet
(Oyster Natural/Twilight Polished)



Pinwheel Deco Mosaic
12"x12" Sheet
(Oyster Natural/Twilight Polished)



TWILIGHT



AZUL



PEARL



OYSTER



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MACAEL

RECTIFIED PORCELAIN

MACAEL

RECTIFIED PORCELAIN

Blanco Natural & Polished



36" x 72"



24" x 48"



12" x 24"



48" x 48"



30" x 30"



24" x 24"



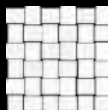
3" x 24" Bullnose



2" x 2" Mosaic
12" x 12" Sheet



Hexagon Mosaic
10" x 14" Sheet
Net Coverage:
0.80 sqft.



Basketweave Mosaic
12" x 12" Sheet



MACAEL

	Technical Specifications	Reference Standard	Standard Requirements	Test Results
	Water Absorption	UNI EN ISO 10545-03	< 0.5 %	Meets requirements
	Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	> 1300 N
	Modulus of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	> 35 N/mm ²
	Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: e > 0.55	> 0.55
	Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	175 mm ³
	Thermal Shock Resistance	UNI EN ISO 10545-09	Resistant	Meets requirements
	Frost Resistance	UNI EN ISO 10545-12	As Reported	Meets requirements
	Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB / GB Acids and Alkalies: As Reported	GB GA
	Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	Class 3
	PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	IV
	Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	Natural: >0.42 Polished: <0.42
	Shade Variation	Not Available	As Reported	V.2
	Thickness	Not Available	As Reported	12x24 - 10mm 36x30 - 10.5mm 24x48 - 10.5mm
	Number of Screens	Not Available	As Reported	12x24 - 56 30x30 - 28 24x48 - 14

IMPORTANT
Please note that tiling in a 50% staggered configuration is not recommended. We suggest the following tiling configurations for these ceramic materials:

NO 50%

YES 15%

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



HAPPY FLOORS





NEOSTILE		
Technical Specifications	Standard Requirements	Test Results
Water Absorption	< 0.5 %	0.2%
Breaking Strength	Minimum: 1300 N	1450 N
Modulus of Rupture	Minimum: 35 N/mm ²	47 N/mm ²
Shock Resistance	Suggested Minimum: e > 0.55	0.87
Resistance to Deep Abrasion	Maximum: 175 mm ²	117 mm ²
Thermal Linear Expansion	Minimum for Floor Applications: Class 3	7.1/7.1
Thermal Shock Resistance	Resistant	Resistant
Moisture Expansion	As Reported	0.1
Frost Resistance	As Reported	Resistant
Chemical Resistance	Domestic Chemical Products: UB / GB	A
	Acids and Alkalis: As Reported	B
Stain Resistance	Minimum: Class 3	5/5/5
PEI Rating (Scratch Resistance)	As Reported	Chalk, Exru, Ash: V Silver, Cement, Grafite : IV
Dynamic Coefficient of Friction (DCOF)	For Level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	0.59
Shade Variation	As Reported	V1
Thickness	As Reported	9 mm ± 5% ± 0.4 mm
Number of Screens	As Reported	8 (12" x 24") - 16 (6" x 24")

IMPORTANT

Please note that fixing in a 50% staggered configuration is not recommended. We suggest the following fixing configurations for these ceramic materials:

**GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2 BROKEN JOINT NOT RECOMMENDED**

NO 50%

NO

YES 15%



NeoStile 2.0

Rectified Full-Body Porcelain



GRAFITE



CEMENTI

GRAFITE

1.5" x 1.5" Mosaic
12" x 12" Sheet

Hexagon Mosaic
11.5" x 14" Sheet
Net Coverage: 0.85 sq/ft

12" x 24"
RECTIFIED EDGE

6" x 24"
RECTIFIED EDGE

3" x 12" Bullnose

CEMENTI

1.5" x 1.5" Mosaic
12" x 12" Sheet

Hexagon Mosaic
11.5" x 14" Sheet
Net Coverage: 0.85 sq/ft

12" x 24"
RECTIFIED EDGE

6" x 24"
RECTIFIED EDGE

3" x 12" Bullnose



SILVER



CHALK

SILVER

1.5" x 1.5" Mosaic
12" x 12" Sheet

Hexagon Mosaic
11.5" x 14" Sheet
Net Coverage: 0.85 sq/ft

12" x 24"
RECTIFIED EDGE

6" x 24"
RECTIFIED EDGE

3" x 12" Bullnose

CHALK

1.5" x 1.5" Mosaic
12" x 12" Sheet

Hexagon Mosaic
11.5" x 14" Sheet
Net Coverage: 0.85 sq/ft

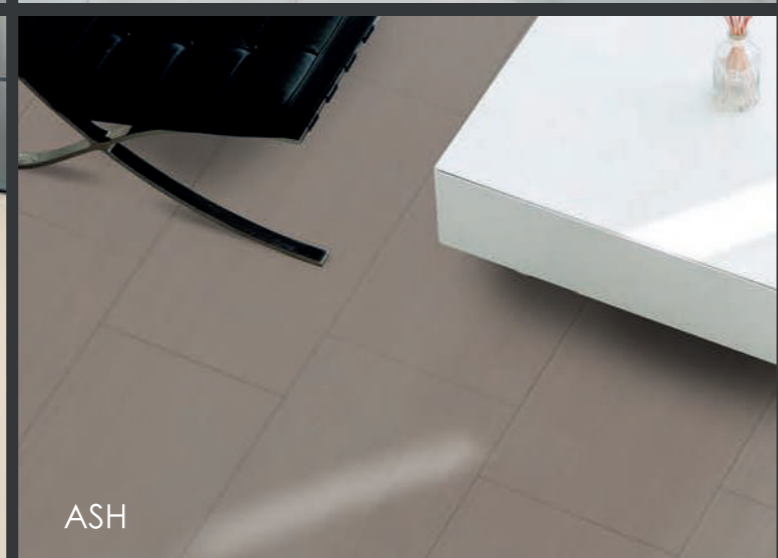
12" x 24"
RECTIFIED EDGE

6" x 24"
RECTIFIED EDGE

3" x 12" Bullnose



EKRU



ASH

EKRU

1.5" x 1.5" Mosaic
12" x 12" Sheet

Hexagon Mosaic
11.5" x 14" Sheet
Net Coverage: 0.85 sq/ft

12" x 24"
RECTIFIED EDGE

6" x 24"
RECTIFIED EDGE

3" x 12" Bullnose

ASH

1.5" x 1.5" Mosaic
12" x 12" Sheet

Hexagon Mosaic
11.5" x 14" Sheet
Net Coverage: 0.85 sq/ft

12" x 24"
RECTIFIED EDGE

6" x 24"
RECTIFIED EDGE

3" x 12" Bullnose

	Technical Specifications	Standard Requirements	Test Results
	Water Absorption UNI EN ISO 10545-03	<0.5%	0.1%
	Breaking Strength UNI EN ISO 10545-04	Minimum: 1300 N	1800-2400 N
	Modulus of Rupture UNI EN ISO 10545-04	Minimum: 35 N/mm ²	40-45 N/mm ²
	Shock Resistance UNI EN ISO 10545-05	Suggested Minimum: e > 0,55	e > 0.55 Restitution Coefficient
	Resistance to Deep Abrasion UNI EN ISO 10545-06	Maximum: 175 mm ³	110-130 mm ³
	Thermal Linear Expansion UNI EN ISO 10545-08	Minimum for Floor Applications: Class 3	<7x10 ⁻⁶ °C
	Thermal Shock Resistance UNI EN ISO 10545-09	Resistant	Resistant
	Moisture Expansion UNI EN ISO 10545-10	As Reported	0,0%
	Frost Resistance UNI EN ISO 10545-12	As Reported	Resistant
	Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products: UB/GB Acids And Alkalis: As Reported	UB ULC-UMC
	Stain Resistance UNI EN ISO 10545-03	Minimum: Class 3	5
PEI	PEI Rating (Scratch Resistance) ASTM C 1027	As Reported	White/Pearl - 4 Silver/Graphite - 3
COF	Static Coefficient of Friction (COF) ASTM C 1028	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.60	DRY: >0.60 WET: >0.60
DCOF	Dynamic Coefficient of Friction (DCOF) ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.42	> 0,42
	Shade Variation Not Available	As Reported	V2
	Thickness Not Available	As Reported	12"x24" - 9 mm 24"x48" - 11.5 mm
	Number of Screens Not Available	As Reported	12"x24" - 31 24"x48" - 10

1/2 BROKEN JOINT NOT RECOMMENDED



MADE IN SPAIN

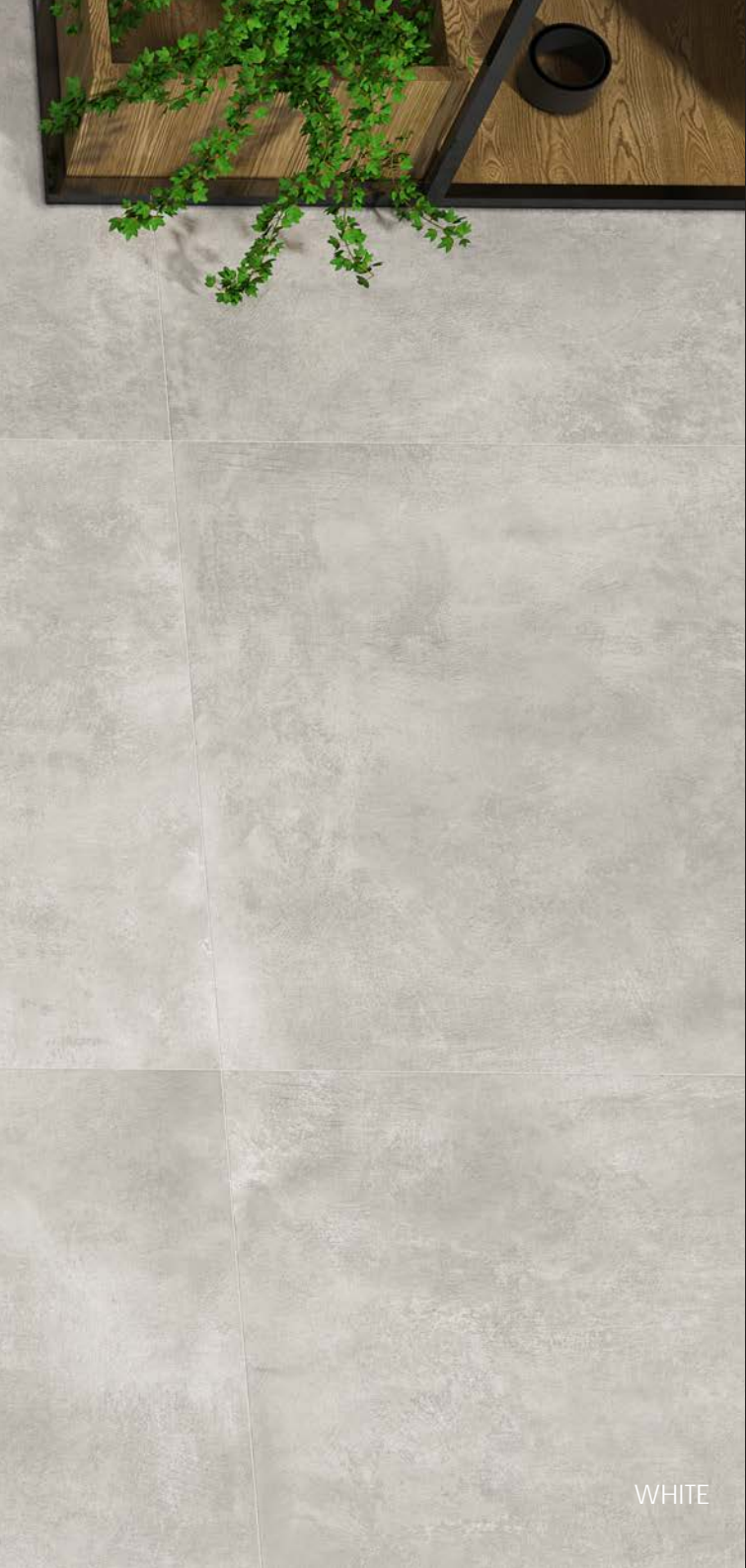


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NEWTON

Rectified Full Body Porcelain

PEARL



WHITE

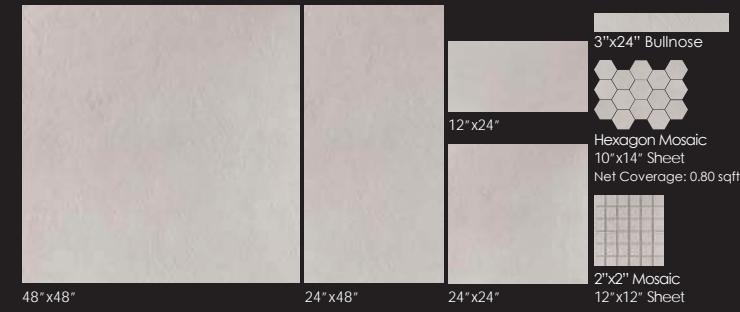


SILVER



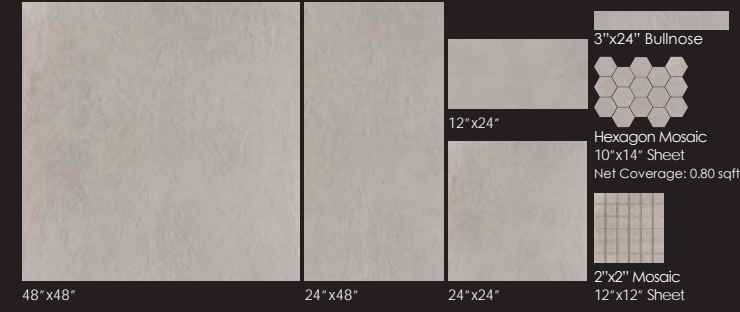
GRAPHITE

White



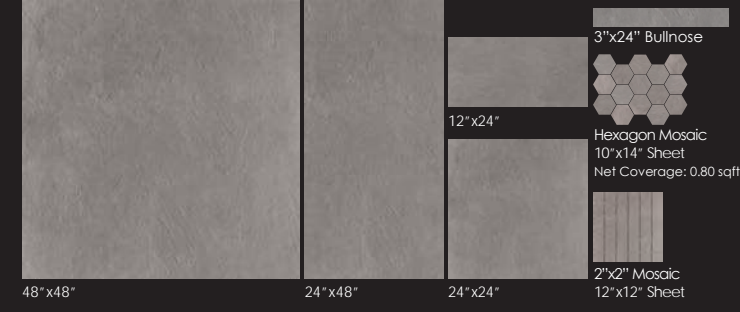
48"x48" 24"x48" 24"x24" 3"x24" Bullnose Hexagon Mosaic 10"x14" Sheet Net Coverage: 0.80 sqft 2"x2" Mosaic 12"x12" Sheet

Pearl



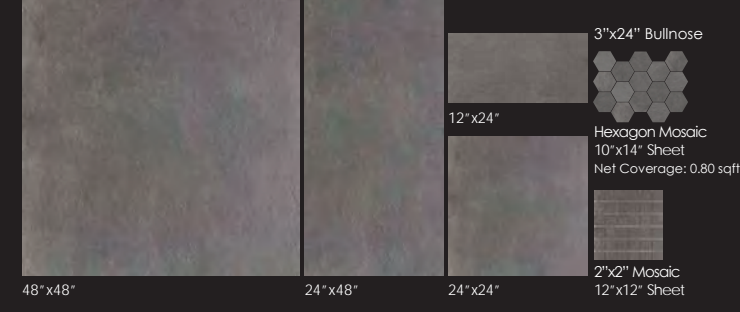
48"x48" 24"x48" 24"x24" 3"x24" Bullnose Hexagon Mosaic 10"x14" Sheet Net Coverage: 0.80 sqft 2"x2" Mosaic 12"x12" Sheet

Silver



48"x48" 24"x48" 24"x24" 3"x24" Bullnose Hexagon Mosaic 10"x14" Sheet Net Coverage: 0.80 sqft 2"x2" Mosaic 12"x12" Sheet

Graphite



48"x48" 24"x48" 24"x24" 3"x24" Bullnose Hexagon Mosaic 10"x14" Sheet Net Coverage: 0.80 sqft 2"x2" Mosaic 12"x12" Sheet

All formats available in Natural and Semi-Polished



Technical Specifications	Standard Requirements	Test Results	
Water Absorption UNI EN ISO 10545-03	< 0,5%	< 0,2% Bla	
Breaking strenght UNI EN ISO 10545-04	Minimum 1300 N	2500 N 10mm 13600 N 20mm	
Modulus of rupture UNI EN ISO 10545-04	Minimum 35 N/mm ²	50 N/mm ²	
Shock resistance UNI EN ISO 10545-05	Suggested Minimum E > 0.55	Not required	
Resistance to deep abrasion UNI EN ISO 10545-06	Maximum 175 mm ³	Not required	
Thermal linear expansion UNI EN ISO 10545-08	Minimum for Floor Applications: Class 3	Not required	
Thermal shock resistance UNI EN ISO 10545-09	As reported	6,3 - 10-6 / °C	
Moisture expansion UNI EN ISO 10545-10	Required	Complies with the standard	
Frost resistance UNI EN ISO 10545-12	Required	Complies with the standard	
Chemical resistance UNI EN ISO 10545-13	Domestic chemical products: GA	GA	
	Acids and Alkalis: As reported	GLA / GHA	
Stain resistance UNI EN ISO 10545-14	Minimum: Class 3	5	
PEI Rating (Scratch Resistance) ASTM C 1027	As reported	White, Gray, Taupe, Dark 5	
Static Coefficient of Friction (COF) ASTM C 1028	For Level Interior Spaces Expected to be walked upon when wet > 0.60	DRY: > 0.60	WET: > 0.60
		0.62	
Dynamic Coefficient of Friction (DCOF) ANSI A137.1	For Level Interior Spaces Expected to be walked upon when wet > 0.42	0.62	
Shade variation	As Reported	V3 MEDIUM	
Thickness	As Reported	24"x48" 10mm	12"x24" 10mm
		24"x24" 10mm	
Number of Screens	As Reported	24"x48" 18 screens 24"x24" 36 screens 12"x24" 72 screens	

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE.
½ BROKEN JOINT NOT RECOMMENDED

1/2 BROKEN JOINT NOT
RECOMMENDED



MANUFACTURER RECOMMENDS
1/3 OR LESS STAGGERED SPACING



HAPPY FLOORS



The data refers to first choice material in the natural version.



NEXTONE

RECTIFIED PORCELAIN



GRAY



WHITE



GREY



TAUPE



DARK

WHITE

24"x48" 19.5"x5.5" Gramma (Boxed in Sets) 3"x24" Bullnose 24"x24" 12"x24" 2"x2" Mix Mosaic (Dot+Line+Mark) 12"x12" Sheet 1"x1" Mosaic 12"x12" Sheet 12"x24" Dot 12"x24" Line 12"x24" Mark Muretto Mosaic 12"x24" Sheet

OUTDOOR GRIP/SANDED FINISH 2CM (3/4")

24"x48" 2CM 24"x24" 2CM

GREY

24"x48" 19.5"x5.5" Gramma (Boxed in Sets) 3"x24" Bullnose 24"x24" 12"x24" 2"x2" Mix Mosaic (Dot+Line+Mark) 12"x12" Sheet 1"x1" Mosaic 12"x12" Sheet 12"x24" Dot 12"x24" Line 12"x24" Mark Muretto Mosaic 12"x24" Sheet

OUTDOOR GRIP/SANDED FINISH 2CM (3/4")

24"x48" 2CM 24"x24" 2CM

TAUPE

24"x48" 19.5"x5.5" Gramma (Boxed in Sets) 3"x24" Bullnose 24"x24" 12"x24" 2"x2" Mix Mosaic (Dot+Line+Mark) 12"x12" Sheet 1"x1" Mosaic 12"x12" Sheet 12"x24" Dot 12"x24" Line 12"x24" Mark Muretto Mosaic 12"x24" Sheet

OUTDOOR GRIP/SANDED FINISH 2CM (3/4")

24"x48" 2CM 24"x24" 2CM

DARK

24"x48" 19.5"x5.5" Gramma (Boxed in Sets) 3"x24" Bullnose 24"x24" 12"x24" 2"x2" Mix Mosaic (Dot+Line+Mark) 12"x12" Sheet 1"x1" Mosaic 12"x12" Sheet 12"x24" Dot 12"x24" Line 12"x24" Mark Muretto Mosaic 12"x24" Sheet

OUTDOOR GRIP/SANDED FINISH 2CM (3/4")

24"x48" 2CM 24"x24" 2CM

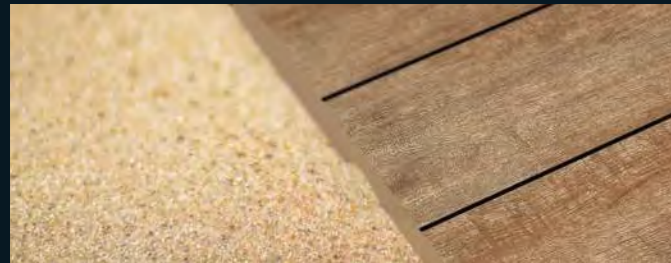
Dry laying on grass



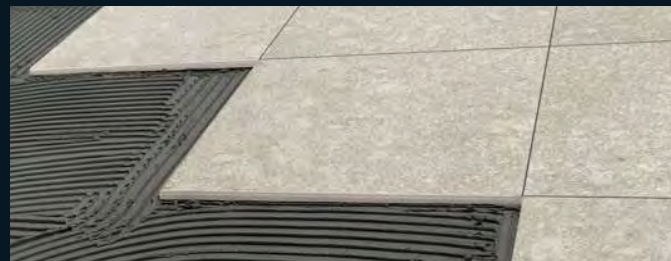
Dry laying on gravel



Dry laying on sand



Laying on screed with adhesive



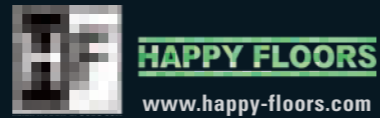
Raised installation



TECHNICAL CHARACTERISTICS	REFERENCE STANDARD	REQUIRED VALUE	AVG. VALUE
DIMENSIONS	ISO 10545-2	Compliant	Compliant
WATER ABSORPTION	ISO 10545-3	≤0,5 %	<0,1%
MODULUS OF RUPTURE	ISO 10545-4	MODULUS OF RUPTURE R ≥ 35 N/mm ² BREAKING STRENGTH S ≥ 1300 N	R>50 N/mm ² S>2500 N
SCRATCH RESISTANCE	ISO 10545-7	0 - V	IV
LINEAR THERMAL EXPANSION	ISO 10545-8	≤ 9x10 ⁻⁵ °C ⁻¹	6x10 ⁻⁵ °C ⁻¹
THERMAL SHOCK RESISTANCE	ISO 10545-9	Resistant	Resistant
FROST RESISTANCE	ISO 10545-12	Resistant	Resistant
ACID AND ALKALI RESISTANCE	ISO 10545-13	CLASS GB MIN.	Low concentr. GLA High concentr. GHA
CHEMICAL RESISTANCE	ISO 10545-13	CLASS GB MIN.	GA
STAIN RESISTANCE	ISO 10545-14	CLASS 3 MIN.	5

FRICITION COEFFICIENT (SLIPPERINESS)	BCR - Italia DM del 14-06-89			ASTM - USA ASTM C1028		DIN - Germania DIN 51130
		Dry rubber 0,62	Wet rubber 0,51	Dry leather 0,62	Dry neolythe 0,69	Wet neolythe 0,62
DYNAMIC COEFFICIENT OF FRICTION (DCOF)	ANSI A137.1-2012			MIN. 0,42		> 0,42 Wet
						> 0,54 Wet (2CM Thick Outdoor)

THE PRODUCTS HAVING AN ABSORPTION < 0,5% ARE CLASSIFIED ACCORDING TO THE UNI CEN STANDARDS "FULLY VITRIFIED TILES" AND ACCORDING TO THE ASTM STANDARDS "IMPERVIOUS TILES"



NORTH WIND

FULL BODY PORCELAIN



GREY 2CM PAVER



WHITE

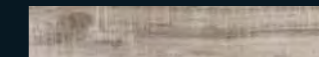


BROWN

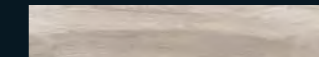


MELANGE

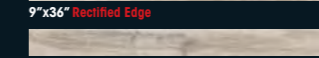
GREY



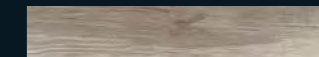
6"x36" Rectified Edge



9"x36" Rectified Edge



Bullnose 3"x36"

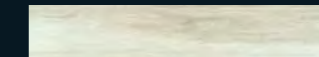


18"x36" 2CM (3/4") Thick Outdoor (Sanded) Paver

WHITE



6"x36" Rectified Edge



9"x36" Rectified Edge

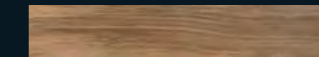


Bullnose 3"x36"



18"x36" 2CM (3/4") Thick Outdoor (Sanded) Paver

BROWN



6"x36" Rectified Edge



9"x36" Rectified Edge

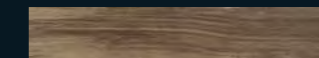


Bullnose 3"x36"

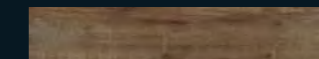


18"x36" 2CM (3/4") Thick Outdoor (Sanded) Paver

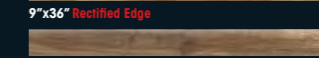
MELANGE



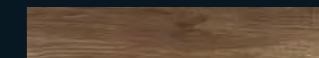
6"x36" Rectified Edge



9"x36" Rectified Edge



Bullnose 3"x36"



18"x36" 2CM (3/4") Thick Outdoor (Sanded) Paver



WHITE 2CM PAVER



BROWN 2CM PAVER

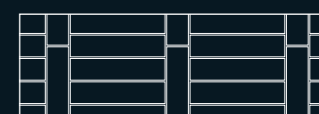


MELANGE 2CM PAVER

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
(Recommended installation patterns)



6"x36" - 100% or 9"x36" - 100%



9"x36" - 100%



6"x36" - 100%



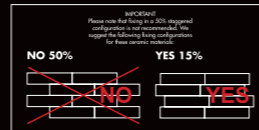
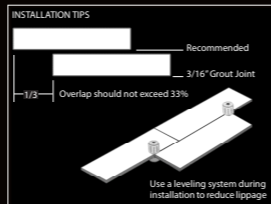
INDICATION:
Please note that grout is not required for installation with a grout joint width of 1/8" or less.
NO 50% YES 15%



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ONYX Porcelain

ONYX			Test Results	
TECHNICAL CHARACTERISTICS	Reference Standard	Standard Requirements	NATURAL	POLISHED
				UNI EN ISO 10545-03
	UNI EN ISO 10545-04	Minimum: 1300N	>1700	
	UNI EN ISO 10545-4	Minimum: 35N/mm ²	>40	
	UNI EN ISO 10545-07	See manufacturer's declaration	Mik. Classe 5 Honey Classe 4 Silver Classe 4	Mik. Classe 4 Honey Classe 4 Silver Classe 4
	UNI EN ISO 10545-08	As Reported	7.5 x10 ⁻⁶ /°C	
	UNI EN ISO 10545-09	-	Resistant	
	UNI EN ISO 10545-12	As Reported	Resistant	
	UNI EN ISO 10545-13	Domestic: Chemical Products/UB/GB Acids and Alkali: As Reported	GLA-GLB	GLB
	UNI EN ISO 10545-14	Minimum: Class 3	CLASSE 4-5	CLASSE 3-4
	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet	>0.42	WET: >0.42
	DIN 51130	-	B9	-
	Not Available	As Reported	V2	
	UNI EN ISO 10545-02	As Reported	±5%	
	Not Available	As Reported	20x120 (8"x47") 30 screens 30x60 (12"x24") 60 screens 10x20 (4"x12") 240 screens	



GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



HAPPY FLOORS



ONYX

HONEY



8"x47" Natural RECTIFIED EDGE
8"x47" Polished RECTIFIED EDGE



12"x24" Natural RECTIFIED EDGE
12"x24" Polished RECTIFIED EDGE



4"x12" Natural RECTIFIED EDGE
4"x12" Polished RECTIFIED EDGE



2.75"x24" Natural Bullnose
2.75"x24" Polished Bullnose



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Muretto Mosaic Natural
(12"x12" Sheet)
Muretto Mosaic Polished
(12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)



Rhomboid Mosaic Natural
(12.5"x13.5" Sheet)
Rhomboid Mosaic Polished
(12.5"x13.5" Sheet)



Rope Mosaic Natural
(13"x14.5" Sheet)
Rope Mosaic Polished
(13"x14.5" Sheet)
Net Coverage: 0.9 Sqft



Elongated Hexagon Mosaic
Natural (12"x12" Sheet)
Elongated Hexagon Mosaic
Polished (12"x12" Sheet)

MILK



8"x47" Natural RECTIFIED EDGE
8"x47" Polished RECTIFIED EDGE



12"x24" Natural RECTIFIED EDGE
12"x24" Polished RECTIFIED EDGE



4"x12" Natural RECTIFIED EDGE
4"x12" Polished RECTIFIED EDGE



2.75"x24" Natural Bullnose
2.75"x24" Polished Bullnose



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Muretto Mosaic Natural
(12"x12" Sheet)
Muretto Mosaic Polished
(12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)



Rhomboid Mosaic Natural
(12.5"x13.5" Sheet)
Rhomboid Mosaic Polished
(12.5"x13.5" Sheet)



Rope Mosaic Natural
(13"x14.5" Sheet)
Rope Mosaic Polished
(13"x14.5" Sheet)
Net Coverage: 0.9 Sqft



Elongated Hexagon Mosaic
Natural (12"x12" Sheet)
Elongated Hexagon Mosaic
Polished (12"x12" Sheet)

SILVER



8"x47" Natural RECTIFIED EDGE
8"x47" Polished RECTIFIED EDGE



12"x24" Natural RECTIFIED EDGE
12"x24" Polished RECTIFIED EDGE



4"x12" Natural RECTIFIED EDGE
4"x12" Polished RECTIFIED EDGE



2.75"x24" Natural Bullnose
2.75"x24" Polished Bullnose



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Muretto Mosaic Natural
(12"x12" Sheet)
Muretto Mosaic Polished
(12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)



Rhomboid Mosaic Natural
(12.5"x13.5" Sheet)
Rhomboid Mosaic Polished
(12.5"x13.5" Sheet)



Rope Mosaic Natural
(13"x14.5" Sheet)
Rope Mosaic Polished
(13"x14.5" Sheet)
Net Coverage: 0.9 Sqft















Elongated Hexagon Mosaic
Natural (12"x12" Sheet)
Elongated Hexagon Mosaic
Polished (12"x12" Sheet)

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



technical characteristics


technical characteristics	reference standard	required values	PAINT STONE producer's value
water absorption (E)	 ISO 10545-3	≤ 0,5%	according to
breaking strength (S)	 ISO 10545-4	thickness ≥ 7,5 mm ≥ 1300 N thickness < 7,5 mm ≥ 700 N	according to
bending strength (S)	 ISO 10545-4	≥ 35 N/mm ²	according to
resistance to abrasion PEI	 ISO 10545-7	according to producer's	pei IV
thermal shock resistance	 ISO 10545-9	no sample must show visible defects	according to
frost resistance	 ISO 10545-12	resistant	resistant
static coefficient of friction	 ASTM C1028 (SCOF)		DRY ≥ 0,60 WET ≥ 0,60
dynamic coefficient of friction	 ANSIA 137.1.2012 (DCCF)		> 0,42
size characteristics	 ISO 10545-2	length and width ± 0,6% thickness ± 5,0% wedging ± 0,6% flatness ± 0,5%	according to
linear thermal expansion coefficient	 ISO 10545-8	test method available	Cl<7 x 10 ⁻⁶ °C
resistance to chemicals	 ISO 10545-13	according to producer's	GHA
stain resistance	 ISO 10545-14	Classe ≥ 3	Classe 5

Following the EN 14411 (ex ISO 13009) norm and test cases UNI ISO 10545 appendix G for ceramic tiles dry pressed with low water absorption E ≤ 0,5% group B1a.


1/2 BROKEN JOINT NOT RECOMMENDED.
MANUFACTURE RECOMMENDS 1/3 OR LESS STAGGERED SPACING.

IMPORTANT
Please note that fixing in a 50% staggered configuration is not recommended. We suggest the following fixing configurations for these ceramic materials:

NO 50%



YES 15%





HAPPY FLOORS



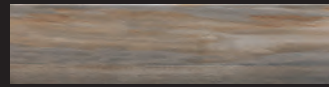
I-Design
Collection

MADE IN ITALY

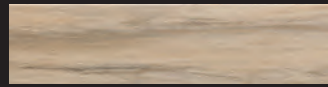


paintStone
PORCELAIN

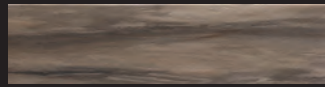




FOREST 8"x32"



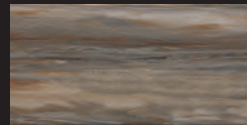
BEIGE 8"x32"



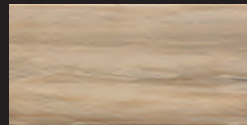
BROWN 8"x32"



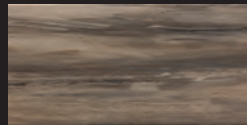
WHITE 8"x32"



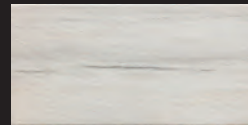
FOREST 12"x24"



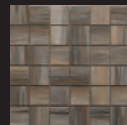
BEIGE 12"x24"



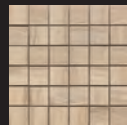
BROWN 12"x24"



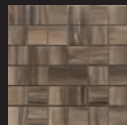
WHITE 12"x24"



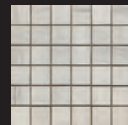
2"x2" MOSAIC (12"x12" SHEET)



2"x2" MOSAIC (12"x12" SHEET)



2"x2" MOSAIC (12"x12" SHEET)



2"x2" MOSAIC (12"x12" SHEET)



12"x13" HEXAGON MOSAIC



12"x13" HEXAGON MOSAIC



12"x13" HEXAGON MOSAIC



12"x13" HEXAGON MOSAIC



FOREST BULLNOSE 3"x12"



BEIGE BULLNOSE 3"x12"
















BROWN BULLNOSE 3"x12"



WHITE BULLNOSE 3"x12"





	Technical characteristics PIETRA D'ASSISI Thickness 0.4" Thickness 0.5"	Typical Values	Expected Limit Values
	Water Absorption UNI EN ISO 10545-03	<= 0,5%	<= 0,5% UNI EN 14411 G
	Breaking strength UNI EN ISO 10545-04	> 1300 N	1300 N min UNI EN 14411 G
	Modulus of rupture UNI EN ISO 10545-04	> 35 N/mm ²	35 N/mm ² min UNI EN 14411 G
	Shock resistance UNI EN ISO 10545-05	e> 0,87 Restitution coeff.	Available test method UNI EN 14411 G
	Resistance to deep abrasion UNI EN ISO 10545-06	<= 175 mm ³	175 mm ³ max UNI EN 14411 G
	Linear thermal expansion UNI EN ISO 10545-08	6,8 (10-6° C-1)	Available test method UNI EN 14411 G
	Thermal shock resistance UNI EN ISO 10545-09	Resistant	Available test method UNI EN 14411 G
	Det. of moisture expansion UNI EN ISO 10545-10	0,08%	Available test method UNI EN 14411 G
	Frost resistance UNI EN ISO 10545-12	Resistant	Required UNI EN 14411 G
	Chemical resistance UNI EN ISO 10545-13	UA ULA - UHA	UB Min. - UNI EN 14411 G From ULA to ULC from UHA to UHC
	Stain resistance UNI EN ISO 10545-14	Class 5	Class 3 min UNI EN 14411 G
	Slip resistance DIN 51130	R 11	From R9 to R13 BGR 181
	Slip resistance barefoot DIN 51097	A + B + C	Available test method UNI EN 14411 G
PEI	PEI Rating (Scratch Resistance) ASTM C 1027	PEI V	
COF	Static coefficient of friction C.O.F. ASTM C 1028	DRY 0,86 WET 0,60	
DCOF	Dynamic coefficient of friction D. C.O.F.	0,72	
V3	Shade Variation	Random	

The data refers to first choice material in the natural version.



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Pietra d'Assisi

FULL BODY PORCELAIN





Grigio 16"x24"
Grigio 16"x16"
Grigio 8"x16"
Grigio 8"x16" Deco
Grigio 8"x8"



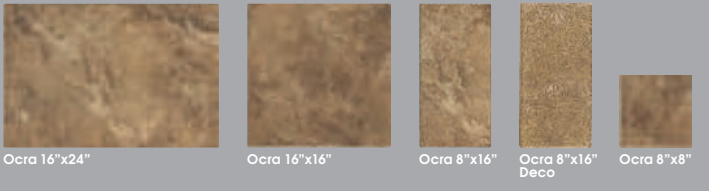
Bianco 16"x24"
Bianco 16"x16"
Bianco 8"x16"
Bianco 8"x16" Deco
Bianco 8"x8"



Beige 16"x24"
Beige 16"x16"
Beige 8"x16"
Beige 8"x16" Deco
Beige 8"x8"



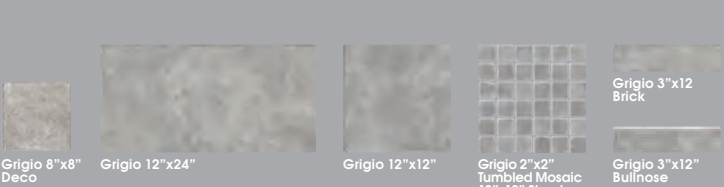
Noce 16"x24"
Noce 16"x16"
Noce 8"x16"
Noce 8"x16" Deco
Noce 8"x8"



Ocra 16"x24"
Ocra 16"x16"
Ocra 8"x16"
Ocra 8"x16" Deco
Ocra 8"x8"



Rosso 16"x24"
Rosso 16"x16"
Rosso 8"x16"
Rosso 8"x16" Deco
Rosso 8"x8"



Grigio 8"x8" Deco
Grigio 12"x24"
Grigio 12"x12"
Grigio 2"x2" Tumbled Mosaic 12"x12" Sheet
Grigio 3"x12" Bullnose



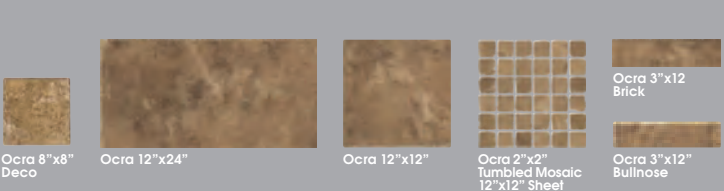
Bianco 8"x8" Deco
Bianco 12"x24"
Bianco 12"x12"
Bianco 2"x2" Tumbled Mosaic 12"x12" Sheet
Bianco 3"x12" Bullnose



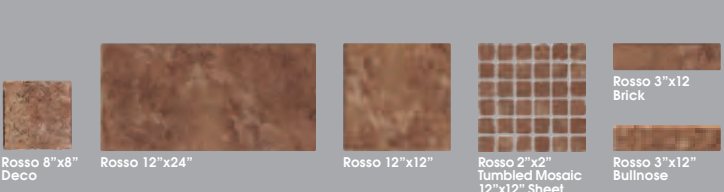
Beige 8"x8" Deco
Beige 12"x24"
Beige 12"x12"
Beige 2"x2" Tumbled Mosaic 12"x12" Sheet
Beige 3"x12" Bullnose



Noce 8"x8" Deco
Noce 12"x24"
Noce 12"x12"
Noce 2"x2" Tumbled Mosaic 12"x12" Sheet
Noce 3"x12" Bullnose



Ocra 8"x8" Deco
Ocra 12"x24"
Ocra 12"x12"
Ocra 2"x2" Tumbled Mosaic 12"x12" Sheet
Ocra 3"x12" Bullnose



Rosso 8"x8" Deco
Rosso 12"x24"
Rosso 12"x12"
Rosso 2"x2" Tumbled Mosaic 12"x12" Sheet
Rosso 3"x12" Bullnose



BEIGE



NOCE



GRIGIO



OCRA



BIANCO



ROSSO



	Technical Specifications	Standard Requirements	Test Results
	Water Absorption UNI EN ISO 10545-03	< 0,5 %	≤ 0,1 %
	Breaking Strength UNI EN ISO 10545-04	Minimum 1300 N	≥ 1800 N
	Modulus of Rupture UNI EN ISO 10545-04	Minimum 35 N/mm2	≥ 40 N/mm2
	Shock Resistance UNI EN ISO 10545-05	Suggested Minimum e > 0,55	e > 0,55 Restitution Coefficient
	Resistance of deep abrasion UNI EN ISO 10545-06	Maximum 175 mm3	≤ 150 mm3
	Thermal Linear Expansion UNI EN ISO 10545-08	Class 3	≤ 7 (MK) ⁻¹
	Thermal Linear Expansion UNI EN ISO 10545-09	Resistant	Resistant
	Moisture Expansion UNI EN ISO 10545-10		0,0 %
	Frost Resistance UNI EN ISO 10545-12		Resistant
	Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products UB/GB	A
		Acids and Alkalis	LA - HA
	Stain Resistance UNI EN ISO 10545-14	Class 3	Class 5
	Static Coefficient of Friction (COF)	> 0,60	≥ 0,60 DRY ≥ 0,60 WET
	Dynamic Coefficient of Friction (DCOF)	> 0,42	> 0,42 WET
	Thickness UNI EN ISO 10545-02	± 5,0% / ± 0,5 mm	24"x48" 9,5mm all other tiles 9mm
	Number of screens (size 12"x24")		> 50

IMPORTANT

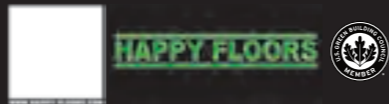
Please note that fixing in a 50% staggered configuration is not recommended. We suggest the following fixing configurations for these ceramic materials:

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE

NO 50%

1/2 BROKEN JOINT NOT RECOMMENDED

YES 15%



The data refers to first choice material in the natural version.



PHASE

RECTIFIED FULL-BODY PORCELAIN

PHASE GREY

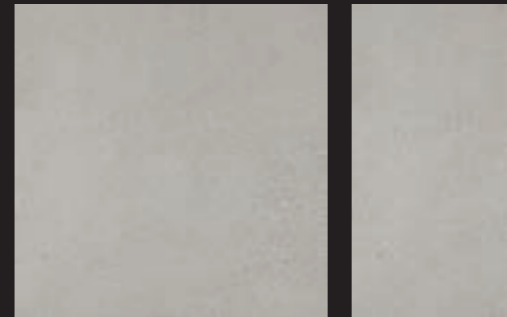


GREY



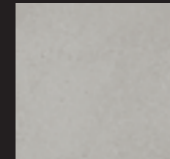
DARK

GREY

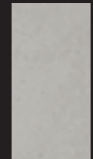


48"x 48"

24"x 48"

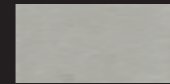


24"x 24"



12"x 24"

3"x 24" Bullnose



12"x 24" Storm Deco



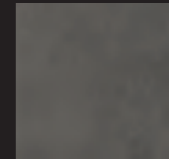
2"x 2" Mosaic / 12"x 12" Sheet

DARK



48"x 48"

24"x 48"

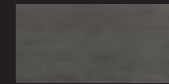


24"x 24"



12"x 24"

3"x 24" Bullnose



12"x 24" Storm Deco



2"x 2" Mosaic / 12"x 12" Sheet



WHITE

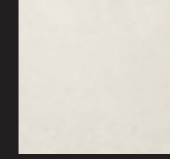


ECRU

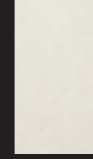
WHITE



24"x 48"

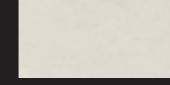


24"x 24"



12"x 24"

3"x 24" Bullnose



12"x 24" Storm Deco

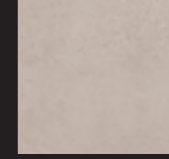


2"x 2" Mosaic / 12"x 12" Sheet

ECRU



24"x 48"

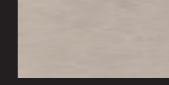


24"x 24"



12"x 24"

3"x 24" Bullnose



12"x 24" Storm Deco



2"x 2" Mosaic / 12"x 12" Sheet



Technical characteristics	Typical Values	Expected Limit Values
Water Absorption UNI EN ISO 10545-03	<= 0,5%	<= 0,5% UNI EN 14411 G
Breaking strength UNI EN ISO 10545-04	> 1300 N	1300 N min UNI EN 14411 G
Modulus of rupture UNI EN ISO 10545-04	> 35 N/mm ²	35 N/mm ² min UNI EN 14411 G
Shock resistance UNI EN ISO 10545-05	e> 0,87 Restitution coeff.	Available test method UNI EN 14411 G
Resistance to deep abrasion UNI EN ISO 10545-06	<= 175 mm ³	175 mm ³ max UNI EN 14411 G
Linear thermal expansion UNI EN ISO 10545-08	6,7 (10-6° C-1)	Available test method UNI EN 14411 G
Thermal shock resistance UNI EN ISO 10545-09	Resistant	Available test method UNI EN 14411 G
Det. of moisture expansion UNI EN ISO 10545-10	0,1%	Available test method UNI EN 14411 G
Frost resistance UNI EN ISO 10545-12	Resistant	Required UNI EN 14411 G
Chemical resistance UNI EN ISO 10545-13	A LA - HA	UB Min. - UNI EN 14411 G From ULA to ULC from UHA to UHC
Stain resistance UNI EN ISO 10545-14	Class 5	Class 3 min UNI EN 14411 G
PEI Rating (Scratch Resist.) ASTM C 1027	PEI IV	As Reported
Slip resistance DIN 51130	R 10	From R9 to R13 BGR 181
Slip resistance barefoot DIN 51097	A+B	Available test method UNI EN 14411 G
Static coefficient of friction C.O.F. ASTM C 1028	DRY 0,73 WET 0,63	
Dynamic coefficient of friction D. C.O.F.	0,72	
Shade Variation	Medium	
Number of screens	45	
Thickness	10 mm.	

The data refers to first choice material in the natural version.

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE

1/2 BROKEN JOINT NOT RECOMMENDED



MANUFACTURE RECOMMENDS 1/3 OR LESS STAGGERED SPACING



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RECLAIMED PORCELAIN





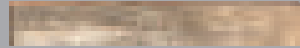
CORONA

BLANCH



CORONA 6.5"x40"

RECTIFIED EDGE



CORONA Bullnose 3"x20"



WILLOW 6.5"x40"

RECTIFIED EDGE



WILLOW Bullnose 3"x20"



CORONA



BLANCH



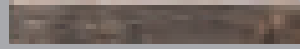
WILLOW

ASHEN



AUBURN 6.5"x40"

RECTIFIED EDGE

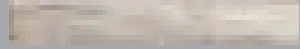


AUBURN Bullnose 3"x20"



BLANCH 6.5"x40"

RECTIFIED EDGE



BLANCH Bullnose 3"x20"



WILLOW



ASHEN



AUBURN

RELIC



ASHEN 6.5"x40"

RECTIFIED EDGE

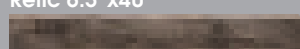


ASHEN Bullnose 3"x20"



RELIC 6.5"x40"

RECTIFIED EDGE



RELIC Bullnose 3"x20"



AUBURN



RELIC



Technical characteristics	Typical Values	Expected Limit Values
Water Absorption RESERVE Thickness 0.4" UNI EN ISO 10545-03	<= 0,5%	<= 0,5% UNI EN 14411 G
Breaking strength UNI EN ISO 10545-04	> 1300 N	1300 N min UNI EN 14411 G
Modulus of rupture UNI EN ISO 10545-04	> 35 N/mm ²	35 N/mm ² min UNI EN 14411 G
Shock resistance UNI EN ISO 10545-05	e> 0,83 Restitution coeff.	Available test method UNI EN 14411 G
Resistance to deep abrasion UNI EN ISO 10545-06	<= 175 mm ³	175 mm ³ max UNI EN 14411 G
Linear thermal expansion UNI EN ISO 10545-08	6,9 (10-6° C-1)	Available test method UNI EN 14411 G
Thermal shock resistance UNI EN ISO 10545-09	Resistant	Available test method UNI EN 14411 G
Det. of moisture expansion UNI EN ISO 10545-10	0,1%	Available test method UNI EN 14411 G
Frost resistance UNI EN ISO 10545-12	Resistant	Required UNI EN 14411 G
Chemical resistance UNI EN ISO 10545-13	UA ULC - UHC	UB Min. - UNI EN 14411 G From ULA to ULC from UHA to UHC
Stain resistance UNI EN ISO 10545-14	Class 4	Class 3 min UNI EN 14411 G
Slip resistance DIN 51130	R 9	From R9 to R13 BGR 181
Slip resistance barefoot DIN 51097	A	Available test method UNI EN 14411 G
Static coefficient of friction C.O.F. ASTM C 1028	DRY 0,76 WET 0,66	
Dynamic coefficient of friction D. C.O.F.	0,51	
Shade Variation	Medium	

The data refers to first choice material in the natural version.

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE

1/2 BROKEN JOINT NOT RECOMMENDED



MANUFACTURE RECOMMENDS 1/3 OR LESS STAGGERED SPACING



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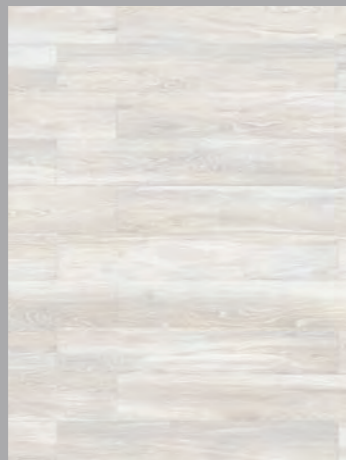
RESERVE

PORCELAIN





HONEY



TALC



FAWN



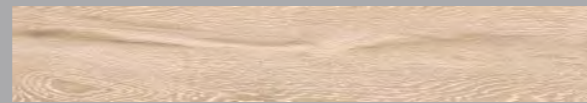
SILVER



SADDLE



ASH



Honey 6.5"x40"



Honey Bullnose 3"x20"



Fawn 6.5"x40"



Fawn Bullnose 3"x20"



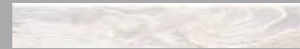
Saddle 6.5"x40"



Saddle Bullnose 3"x20"



Talc 6.5"x40"



Talc Bullnose 3"x20"



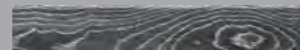
Silver 6.5"x40"



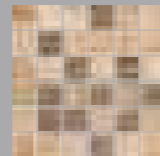
Silver Bullnose 3"x20"



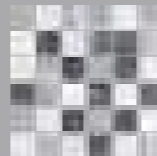
Ash 6.5"x40"



Ash Bullnose 3"x20"



2"x2" Mosaic Warm Mix
Honey+Fawn+Saddle
12"x12" Sheet



2"x2" Mosaic Cold Mix
Talc+Silver+Ash
12"x12" Sheet



HONEY



FAWN



SADDLE



TALC



SILVER



ASH



Silver

PORCELAIN

SILVER			
Technical Specifications	Reference Standard	Standard Requirements	Test Results
Water Absorption	UNE EN ISO 10545-03	< 0.5 %	Meets requirements
Breaking Strength	UNE EN ISO 10545-04	Minimum: 1300 N	>1300 N
Modulus of Rupture	UNE EN ISO 10545-04	Minimum: 35 N/mm ²	> 35 N/mm ²
Shock Resistance	UNE EN ISO 10545-08	Suggested Minimum: e > 0.55	> 0.55
Resistance to Deep Abrasion	UNE EN ISO 11946-08	Maximum: 175 mm ²	175 mm ²
Thermal Shock Resistance	UNE EN ISO 11946-08	Resistant	Meets requirements
Frost Resistance	UNE EN ISO 11946-12	As Reported	Meets requirements
Chemical Resistance	UNE EN ISO 10545-13	Domestic Chemical Products: 0/0/1/0/0 Acids and Alkalis: As Reported	GLA / GHA GA
Stain Resistance	UNE EN ISO 10545-14	Minimum: Class 3	Class 3
PEI Rating (Scratch Resistance)	ASTM D 11077	As Reported	IV
Dynamic Coefficient of Friction (DCOF)	AASD A1337.1	For Level Interior Spaces, Reported to be: 0.42 For Wet: 0.42	0.42
Shade Variation	Not Available	As Reported	V.2
Thickness	Not Available	As Reported	9mm
Number of Screens	Not Available	As Reported	60

1/2 BROKEN JOINT NOT RECOMMENDED



MANUFACTURER RECOMMENDS 1/3 OR LESS STAGGERED SPACING



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White



24"x48"
Rectified Edge



Hexagon Mosaic
12"x14" Sheet

3"x24" Bullnose

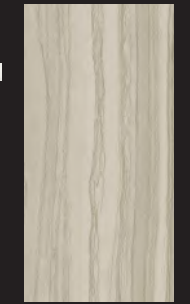


12"x24"



2"x2" Mosaic
12"x12" Sheet

Taupe

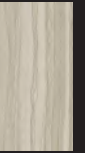


24"x48"
Rectified Edge



Hexagon Mosaic
12"x14" Sheet

3"x24" Bullnose



12"x24"



2"x2" Mosaic
12"x12" Sheet



Grey



24"x48"
Rectified Edge



Hexagon Mosaic
12"x14" Sheet

3"x24" Bullnose



12"x24"



2"x2" Mosaic
12"x12" sheet

Dark



24"x48"
Rectified Edge



Hexagon Mosaic
12"x14" Sheet

3"x24" Bullnose



12"x24"



2"x2" Mosaic
12"x12" Sheet



STATUARIO		PORCELAIN TILES		
		GLOSSY	MATTE	
Technical Specifications	Reference Standard	Standard Requirements	Test Results	Test Results
Water Absorption	UNE EN ISO 10545-03	0.5<E>≤0.3% E≤0.5%	1.6% Bil	0.1% Bia
Breaking Strength	UNE EN ISO 10545-04	Minimum: >1100 N >1300 N	>1100 N	>1300 N
Modulus of Rupture	UNE EN ISO 10545-04	>30 N/mm² >35 N/mm²	>30 N/mm²	>35 N/mm²
Shock Resistance	UNE EN ISO 10545-05	Suggested Minimum: E>0.55	Undeclared	Undeclared
Resistance to Deep Abrasion	UNE EN ISO 10545-06	Maximum: 175 mm³	No required	No required
Thermal Linear Expansion	UNE EN ISO 10545-08	As reported	5.9 · 10 ⁻⁴ /°C	5.9 · 10 ⁻⁴ /°C
Thermal Shock Resistance	UNE EN ISO 10545-09	Required	Complies with the standard	Complies with the standard
Moisture Expansion	UNE EN ISO 10545-10	As reported	Undeclared	Undeclared
Frost Resistance	UNE EN ISO 10545-12	Required	Complies with the standard	Complies with the standard
Chemical Resistance	UNE EN ISO 10545-13	Domestic Chemical Products: GB Acids and Alkalis: As reported	GA GHA	GA GHA
Stain Resistance	UNE EN ISO 10545-14	Minimum: Class 3	5	5
PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	4	4
COF	Static Coefficient of Friction (COF)	ASTM C 1028	For Level Interior Spaces Expected to be walked upon when wet: >0.60	DRY: WET: DRY: >0.60 WET: >0.60
DCOF	Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be walked upon when wet: >0.42	>0.42
Shade Variation	Not Available	As Reported	V3 MODERATE	
Thickness	Not Available	As Reported	24"x48" 0.44" 30"x30" 0.40" 24"x24" 0.40" 12"x24" 0.40"	
Number of Screens	Not Available	As Reported	24"x48" 12 30"x30" 12 24"x24" 24 12"x24" 48	

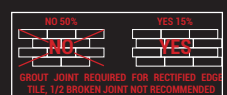


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STATUARIO

PORCELAIN & WALL TILE COLLECTION

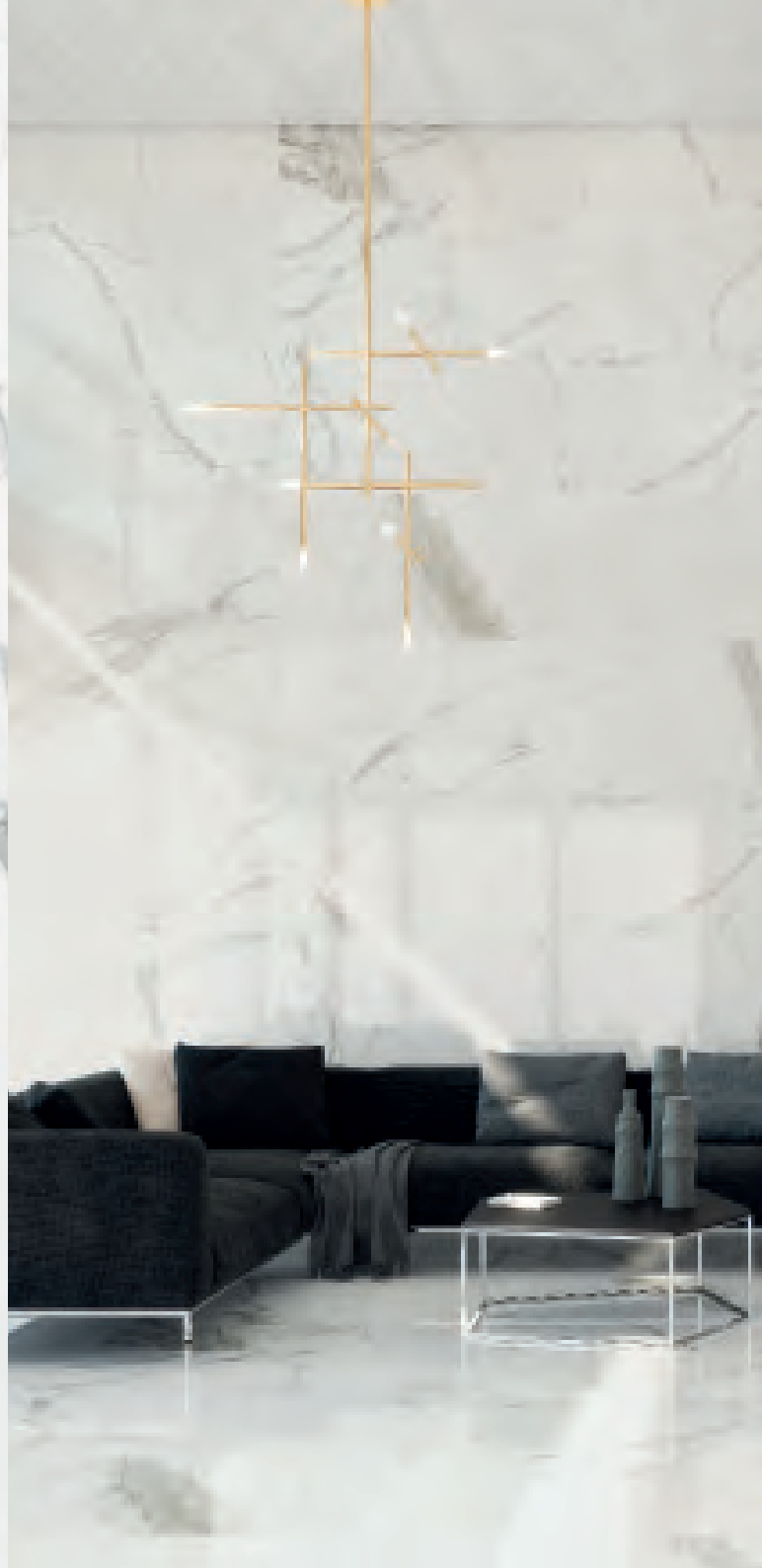
STATUARIO		WALL TILES	
		GLOSSY	
Technical Specifications	Reference Standard	Standard Requirements	Test Results
Water Absorption	UNE EN ISO 10545-03	E>10%	15% Bill
Breaking Strength	UNE EN ISO 10545-04	Minimum: 600N	>600N - Complies with the standard
Modulus of Rupture	UNE EN ISO 10545-04	Minimum: >18N/mm²	Complies with the standard
Shock Resistance	UNE EN ISO 10545-05	Suggested Minimum: E>0.55	No required
Resistance to Deep Abrasion	UNE EN ISO 10545-06	Maximum: 175 mm³	No required
Thermal Linear Expansion	UNE EN ISO 10545-08	As reported	6.1 · 10 ⁻⁴ /°C
Thermal Shock Resistance	UNE EN ISO 10545-09	Required	Complies with the standard
Moisture Expansion	UNE EN ISO 10545-10	As reported	Max. 0.2 mm/m
Frost Resistance	UNE EN ISO 10545-12	As reported	Indoor use.
Chemical Resistance	UNE EN ISO 10545-13	Domestic Chemical Products: GA Acids and Alkalis: As reported	GA GHA
Stain Resistance	UNE EN ISO 10545-14	Minimum: Class 3	5
PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	No applicable
COF	Static Coefficient of Friction (COF)	ASTM C 1028	For Level Interior Spaces Expected to be walked upon when wet: No applicable No applicable
DCOF	Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be walked upon when wet: No applicable
Shade Variation	Not Available	As Reported	V3 MODERATE
Thickness	Not Available	As Reported	12"x36" 0.34" 12"x36" relief 0.43"
Number of Screens	Not Available	As Reported	12"x36" 18 Screens



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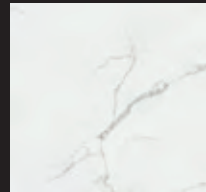
I-Design Collection



PORCELAIN TILES



24"x48" Glossy
RECTIFIED EDGE



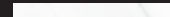
30"x30" Glossy
RECTIFIED EDGE



24"x24" Glossy
RECTIFIED EDGE



12"x24" Glossy
RECTIFIED EDGE



3"x24" Bullnose Glossy



2" x 2" Mosaic
Glossy (12"x12" Sheet)
Matte (12"x12" Sheet)



Large Hex Mosaic
Glossy (11"x13" Sheet)
Matte (11"x13" Sheet)



Small Hex Mosaic
Glossy (10.5"x11" Sheet)
Matte (10.5"x11" Sheet)



Basketweave Mosaic
Glossy (12"x12" Sheet)
Matte (12"x12" Sheet)

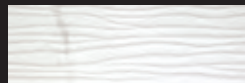


Herringbone Mosaic
Glossy (9"x12" Sheet)
Matte (9"x12" Sheet)

WHITE BODY CERAMIC WALL TILES



12"x36" Glossy
RECTIFIED EDGE
12"x36" Matte
RECTIFIED EDGE



12"x36" Wave Glossy
RECTIFIED EDGE
12"x36" Wave Matte
RECTIFIED EDGE

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE,
1/2 BROKEN JOINT NOT RECOMMENDED





STRATUS				
TECHNICAL CHARACTERISTICS	Reference Standard	Standard Requirements	Test Results	
			NATURAL	POLISHED
Water Absorption	UNI EN ISO 10545-03	<0.5%	E<0.1%	
Breaking strength	UNI EN ISO 10545-04	Minimum: 1300N	>1700	
Modulus of Rupture	UNI EN ISO 10545-4	Minimum: 35N/mm ²	>40	
Resistance to abrasion of glazed tiles (PE)	UNI EN ISO 10545-07	See manufacturer's declaration	On Class 4 Grigo Class 4	On Class 5 Grigo Class 5
Thermal Linear Expansion	UNI EN ISO 10545-08	As Reported	7.5 x10 ⁻⁴ /°C	
Thermal Shocks Resistance	UNI EN ISO 10545-09	-	Resistant	
Frost Resistance	UNI EN ISO 10545-12	As Reported	Resistant	
Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products (LBI/GB)	GA	
		Acids and Alkalis: As Reported	GLA	GLB
Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	CLASSE 4-5	CLASSE 4-5
DCOF: Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet	WET: >0.42	
Friction coefficient (slipperiness)	DIN 51130	-	-	-
Shade Variation	Not Available	As Reported	V2	
Thickness	UNI EN ISO 10545-02	As Reported	±5%	
Number of Screens	Not Available	As Reported	60x120 (24"x48") 18 screens	
			30x60 (12"x24") 48 screens	
			10x30 (4"x12") 288 screens	

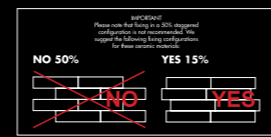
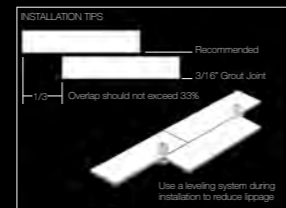


STRATUS

Porcelain



AMOUNT OF COLOUR VARIATION
V2
MEDIUM COLOR VARIATION

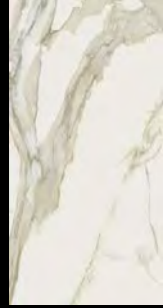


GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2" BROKEN JOINT NOT RECOMMENDED



STRATUS

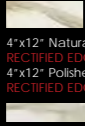
ORO



24"x48" Natural
RECTIFIED EDGE
24"x48" Polished
RECTIFIED EDGE



12"x24" Natural
RECTIFIED EDGE
12"x24" Polished
RECTIFIED EDGE



3"x24" Natural
RECTIFIED EDGE
3"x24" Polished
RECTIFIED EDGE



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Muretto Mosaic
Natural (12"x12" Sheet)
Muretto Mosaic
Polished (12"x12" Sheet)



Hexagon Mosaic Natural
(12"x14" Sheet)
Hexagon Mosaic Polished
(12"x14" Sheet)



Rhomboid Mosaic
Natural (12.5"x13.5" Sheet)
Rhomboid Mosaic
Polished (12.5"x13.5" Sheet)



Rope Mosaic Natural
(13"x14.5" Sheet)
Rope Mosaic Polished
(13"x14.5" Sheet)
Net Coverage: 0.9 Sqft



Elongated Hex Mosaic
Natural (12"x12" Sheet)
Elongated Hex Mosaic
Polished (12"x12" Sheet)

GRIGIO



24"x48" Natural
RECTIFIED EDGE
24"x48" Polished
RECTIFIED EDGE



12"x24" Natural
RECTIFIED EDGE
12"x24" Polished
RECTIFIED EDGE



3"x24" Natural
RECTIFIED EDGE
3"x24" Polished
RECTIFIED EDGE



2"x2" Mosaic Natural
(12"x12" Sheet)
2"x2" Mosaic Polished
(12"x12" Sheet)



Muretto Mosaic
Natural (12"x12" Sheet)
Muretto Mosaic
Polished (12"x12" Sheet)



Hexagon Mosaic
Natural (12"x14" Sheet)
Hexagon Mosaic
Polished (12"x14" Sheet)



Rhomboid Mosaic
Natural (12.5"x13.5" Sheet)
Rhomboid Mosaic
Polished (12.5"x13.5" Sheet)



Rope Mosaic Natural
(12.5"x13.5" Sheet)
Rope Mosaic Polished
(12.5"x13.5" Sheet)
Net Coverage: 0.9 Sqft



Elongated Hex Mosaic
Natural (12"x12" Sheet)
Elongated Hex Mosaic
Polished (12"x12" Sheet)

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE
1/2 BROKEN JOINT NOT RECOMMENDED





HAPPY FLOORS



DIGITAL INKJET TILE



TECHNICAL SPECIFICATIONS

Porcelain tiles



Glossy tiles

Group: Blb

(Water absorption between 0.5% $E \le 3\%$)

Natural tiles

Group: Bla

(Water absorption <math>< 0.5\%</math>)

N^o 16
of changes:



Thickness 0.41"
12"x24"
24"x24"

Shade variation:

N^o V2 Slight

Technical features glazed porcelain stoneware.
Conforming to Standards EN 14411 ISO 9001:2008 APP. G (Group Bla GL)

	WATER ABSORPTION ISO 10545-3	MODULUS OF RUPTURE ISO 10545-4	UNE-EN-ISO 10545-7
NATURAL	Bla $E \le 0.5\%$	>1300N	REQUIRED
	ACCORDING	ACCORDING	IV
GLOSSY	Bla $0.5\% < E \le 3\%$	>1100N	REQUIRED
	ACCORDING	ACCORDING	III

	UNE-EN-ISO 10545-13 LOW CONCENTRATION	UNE-EN-ISO 10545-13 HIGH CONCENTRATION	UNE-EN-ISO 10545-13 DOMESTIC CHEMICAL
NATURAL	REQUIRED	REQUIRED	REQUIRED
	GLB	GHB	GLB
GLOSSY	REQUIRED	REQUIRED	REQUIRED
	GLA	GHB	GLB

	UNE-ENV 2633:2003	UNE-EN 67 101	ASTM TEST C-1028-96
NATURAL	CLASS 1 (Interior use only)	4	Dry: 0.70 Wet: 0.60
GLOSSY	CLASS 1 (Interior use only)	3	Dry: 0.70 Wet: 0.40

ISO 10545-3: Determining water absorption.
UNE-ENV 12633:2003: Determining slip resistance.
UNE-EN-ISO 10545-13:
Determining resistance to cleaning products and swimming pool reagents.
UNE-EN-ISO 10545-7: Determining resistance to the surface abrasion.
UNE-EN 67101: Determining resistance to scratch.
ASTM C-1028-96: Determining coefficient of friction.



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Sublime PORCELAIN

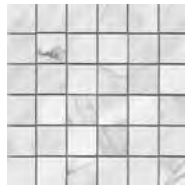


Sublime PORCELAIN

Sublime Brillo (Glossy) **RECTIFIED EDGE**
24" x 24"
Sublime Natural **RECTIFIED EDGE**
24" x 24"



Sublime Brillo (Glossy) **RECTIFIED EDGE**
12" x 24"
Sublime Natural **RECTIFIED EDGE**
12" x 24"



2x2 Mosaic Sublime Natural
(12"x12" Sheet)



Sublime Bullnose Brillo (Glossy)
3" x 24"
Sublime Bullnose Natural
3" x 24"



GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE, 1/2 BROKEN JOINT NOT RECOMMENDED



TACOMA				
	Technical Specifications	Reference Standard	Standard Requirements	Test Results
	Water Absorption	UNI EN ISO 10545-03	< 0.5 %	In Accordance
	Breaking Strength	UNI EN ISO 10545-04	Minimum: 1300 N	In Accordance
	Modulus of Rupture	UNI EN ISO 10545-04	Minimum: 35 N/mm ²	In Accordance
	Shock Resistance	UNI EN ISO 10545-05	Suggested Minimum: e > 0.55	Resistant
	Resistance to Deep Abrasion	UNI EN ISO 10545-06	Maximum: 175 mm ³	In Accordance
	Thermal Shock Resistance	UNI EN ISO 10545-09	Resistant	In Accordance
	Frost Resistance	UNI EN ISO 10545-12	As Reported	Resistant
	Chemical Resistance	UNI EN ISO 10545-13	Domestic Chemical Products: UB / GB Acids and Alkalies: As Reported	In Accordance
	Stain Resistance	UNI EN ISO 10545-14	Minimum: Class 3	In Accordance
PEI	PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	V: Crest IV: Valley Summer Shadow
DCOF	Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When Wet : > 0.42	0.67
V2	Shade Variation	Not Available	As Reported	V2
	Thickness	Not Available	As Reported	10 mm
	Number of Screens	Not Available	As Reported	18

1/2 BROKEN JOINT NOT RECOMMENDED



MANUFACTURER RECOMMENDS 1/3 OR LESS STAGGERED SPACING



M A D E I N
I T A L Y



VALLEY



CREST



SUMMER

VALLEY



6" X 40"

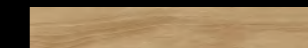


BULLNOSE 3" X 20"

SUMMER



6" X 40"

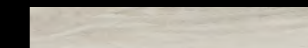


BULLNOSE 3" X 20"

CREST



6" X 40"



BULLNOSE 3" X 20"














SHADOW



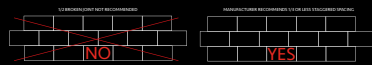
6" X 40"



BULLNOSE 3" X 20"

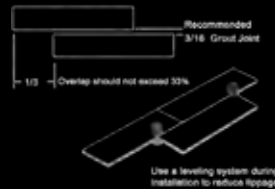
	Technical Specifications	Standard Requirements	Test Results	
			NATURAL	POLISHED
 Water Absorption UNI EN ISO 10545-03	<0.5%	E<0,1%		
 Breaking Strength UNI EN ISO 10545-04	Minimum: 1300 N	1800-2400 N		
 Modulus of Rupture UNI EN ISO 10545-04	Minimum: 35 N/mm ²	35-45 N/mm ²		
 Shock Resistance UNI EN ISO 10545-05	Suggested Minimum: e > 0,55	e 50,55 Resitution		
 Resistance to Deep Abrasion UNI EN ISO 10545-06	Maximum: 175 mm ³	110-130 mm ³		
 Thermal Linear Expansion UNI EN ISO 10545-08 n	Minimum for Floor Applications: Class 3	27x10.- 6°C		
 Thermal Shock Resistance UNI EN ISO 10545-09	Resistant	Resistant		
 Moisture Expansion UNI EN ISO 10545-10	As Reported	0,0%		
 Frost Resistance UNI EN ISO 10545-12	As Reported	Resistant		
 Chemical Resistance UNI EN ISO 10545-13	Domestic Chemical Products: UB/GB Acids And Alkalis: As Reported	UA ULC-UMC		
 Stain Resistance UNI EN ISO 10545-03	Minimum: Class 3	5		
PEI PEI Rating (Scratch Resistance) ASTM C 1027	As Reported	PEI IV-		
COF ASTM C 1028	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.60	> 0.60-		
DCOF (DCOF) ANSI A137.1	For Level Interior Spaces Expected to be Walked Upon When wet: > 0.42	> 0.42-		
 Thickness	As Reported	8"x 48"- 11 mm 6"x 36"- 11 mm		
 Number of Screens	As Reported	8"x 48"- 30 6"x 36"- 30		

1/2 BROKEN JOINT NOT RECOMMENDED



MADE IN SPAIN

INSTALLATION TIPS



HAPPY FLOORS



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TASMANIA

PORCELAIN

RAIN



RAIN



HAIL



FROST



RAIN



DRIFT



TEAK

Tasmania Rain

	8\"x 48\" Polished 8\"x 48\" Natural		3\"x 24\" Bullnose Polished 3\"x 24\" Bullnose Natural
	6\"x 36\" Polished 6\"x 36\" Natural		Hexagon Mosaic Polished 10\"x 14\" Sheet Hexagon Mosaic Natural 10\"x 14\" Sheet Net Coverage: 0.80 sqft
	2\"x 2\" Mosaic Polished 12\"x 12\" Sheet 2\"x 2\" Mosaic Natural 12\"x 12\" Sheet		

Tasmania Hail

	8\"x 48\" Polished 8\"x 48\" Natural		3\"x 24\" Bullnose Polished 3\"x 24\" Bullnose Natural
	6\"x 36\" Polished 6\"x 36\" Natural		Hexagon Mosaic Polished 10\"x 14\" Sheet Hexagon Mosaic Natural 10\"x 14\" Sheet Net Coverage: 0.80 sqft
	2\"x 2\" Mosaic Polished 12\"x 12\" Sheet 2\"x 2\" Mosaic Natural 12\"x 12\" Sheet		

Tasmania Frost

	8\"x 48\" Polished 8\"x 48\" Natural		3\"x 24\" Bullnose Polished 3\"x 24\" Bullnose Natural
	6\"x 36\" Polished 6\"x 36\" Natural		Hexagon Mosaic Polished 10\"x 14\" Sheet Hexagon Mosaic Natural 10\"x 14\" Sheet Net Coverage: 0.80 sqft
	2\"x 2\" Mosaic Polished 12\"x 12\" Sheet 2\"x 2\" Mosaic Natural 12\"x 12\" Sheet		

Tasmania Drift

	8\"x 48\" Polished 8\"x 48\" Natural		3\"x 24\" Bullnose Polished 3\"x 24\" Bullnose Natural
	6\"x 36\" Polished 6\"x 36\" Natural		Hexagon Mosaic Polished 10\"x 14\" Sheet Hexagon Mosaic Natural 10\"x 14\" Sheet Net Coverage: 0.80 sqft
	2\"x 2\" Mosaic Polished 12\"x 12\" Sheet 2\"x 2\" Mosaic Natural 12\"x 12\" Sheet		

Tasmania Teak

	8\"x 48\" Polished 8\"x 48\" Natural		3\"x 24\" Bullnose Polished 3\"x 24\" Bullnose Natural
	6\"x 36\" Polished 6\"x 36\" Natural		Hexagon Mosaic Polished 10\"x 14\" Sheet Hexagon Mosaic Natural 10\"x 14\" Sheet Net Coverage: 0.80 sqft
	2\"x 2\" Mosaic Polished 12\"x 12\" Sheet 2\"x 2\" Mosaic Natural 12\"x 12\" Sheet		

TITAN		WALL TILES GLOSSY	
Technical Specifications	Reference Standard	Standard Requirements	Test Results
Water Absorption	UNE EN ISO 10545-03	E<10%	15% Bill
Breaking Strength	UNE EN ISO 10545-04	Minimum: 600N	>600N - Complies with the standard
Modulus of Rupture	UNE EN ISO 10545-04	Minimum: >18N/mm ²	Complies with the standard
Shock Resistance	UNE EN ISO 10545-05	Suggested Minimum: E<0.55	No required
Resistance to Deep Abrasion	UNE EN ISO 10545-06	Maximum: 175 mm ²	No required
Thermal Linear Expansion	UNE EN ISO 10545-08	As reported	6.1 · 10 ⁻⁴ /°C
Thermal Shock Resistance	UNE EN ISO 10545-09	Required	Complies with the standard
Moisture Expansion	UNE EN ISO 10545-10	As reported	Max. 0.2 mm/m
Frost Resistance	UNE EN ISO 10545-12	As reported	Indoor use.
Chemical Resistance	UNE EN ISO 10545-13	Domestic Chemical Products:	GA
		Acids and Alkalis: As reported	GLA GHA
Stain Resistance	UNE EN ISO 10545-14	Minimum: Class 3	5
PEI PEI Rating (Scratch Resistance)	ASTM C 1027	As Reported	No applicable
COF Static Coefficient of Friction (COF)	ASTM C 1028	For Level Interior Spaces Expected to be walked upon when wet	No applicable
		For Level Interior Spaces Expected to be walked upon when wet	No applicable
DOOF Dynamic Coefficient of Friction (DCOF)	ANSI A137.1	For Level Interior Spaces Expected to be walked upon when wet	No applicable
Shade Variation	Not Available	As Reported	V2 SLIGHT
Thickness	Not Available	As Reported	12"x36" 0.31" 4"x12" relief 0.31"
Number of Screens	Not Available	As Reported	12"x36" 6 4"x12" 12



IMPORTANT FOR 12"x36" FORMAT
PLEASE NOTE THAT INSTALLING IN A 50% OFFSET CONFIGURATION IS NOT RECOMMENDED. WE SUGGEST A MAXIMUM OF 30%
NO 50% FOR 12"x36"

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE, 1/2 BROKEN JOINT NOT RECOMMENDED



HAPPY FLOORS



I-Design
Collection

TITAN

Wall Tile Collection



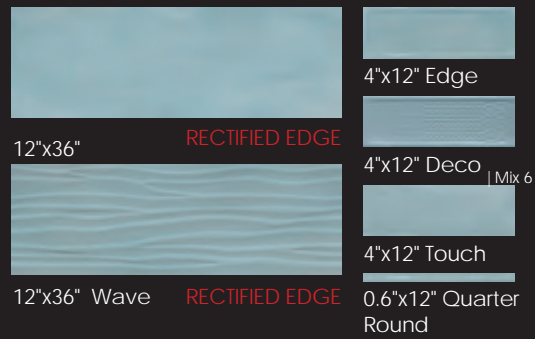
TITAN Wall Tile Collection

WHITE-BODY CERAMIC WALL TILES

WHITE



AQUA



IVORY



PEARL



GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE,
1/2 BROKEN JOINT NOT RECOMMENDED



WHITE



WHITE



PEARL



IVORY



	Technical characteristics X-ROCK (Thickness 03")	Typical Values	Expected Limit Values
	Water Absorption UNI EN ISO 10545-03	< = 0,5%	< = 0,5% UNI EN 14411 G
	Breaking strength UNI EN ISO 10545-04	> 1300N	1300 N min UNI EN 14411 G
	Modulus of rupture UNI EN ISO 10545-04	> 35 N/mm ²	35 N/mm ² UNI EN 14411 G
	Shock resistance UNI EN ISO 10545-05	e > 0,55 Restitution coefficient	Available test method UNI EN 14411 G
	Resistance to deep abrasion UNI EN ISO 10545-06	< = 175 mm ³	175 mm ³ max UNI EN 14411 G
	Linear thermal expansion UNI EN ISO 10545-08	7,1 (10 ⁻⁶ ° C-1)	Available test method UNI EN 14411 G
	Thermal shock resistance UNI EN ISO 10545-06	Resistant	Available test method UNI EN 14411 G
	Determination of moisture expansion UNI EN ISO 10545-10	0,0%	Available test method UNI EN 14411 G
	Frost resistance UNI EN ISO 10545-12	Resistant	Required UNI EN 14411 G
	Chemical resistance UNI EN ISO 10545-13	UA ULC - UHC	UB Min. - UNI EN 14411 G From ULA to ULC / From UHA to UHC
	Slip resistance DIN 51130	R 9	From R9 to R13 BGR 181
	Slip resistance barfoot DIN 51097	A	Available test method UNI EN 14411 G
DCOF	Dynamic coefficient of friction D. C.O.F.	≥ 0,42	
	Shade variation	Medium	

GROUT JOINT REQUIRED FOR RECTIFIED EDGE TILE.
½ BROKEN JOINT NOT RECOMMENDED

1/2 BROKEN JOINT NOT RECOMMENDED



MANUFACTURER RECOMMENDS
1/3 OR LESS STAGGERED SPACING



The data refers to first choice material in the natural version.



X-ROCK

FULL BODY PORCELAIN

X-ROCK W



X-ROCK B



X-ROCK G



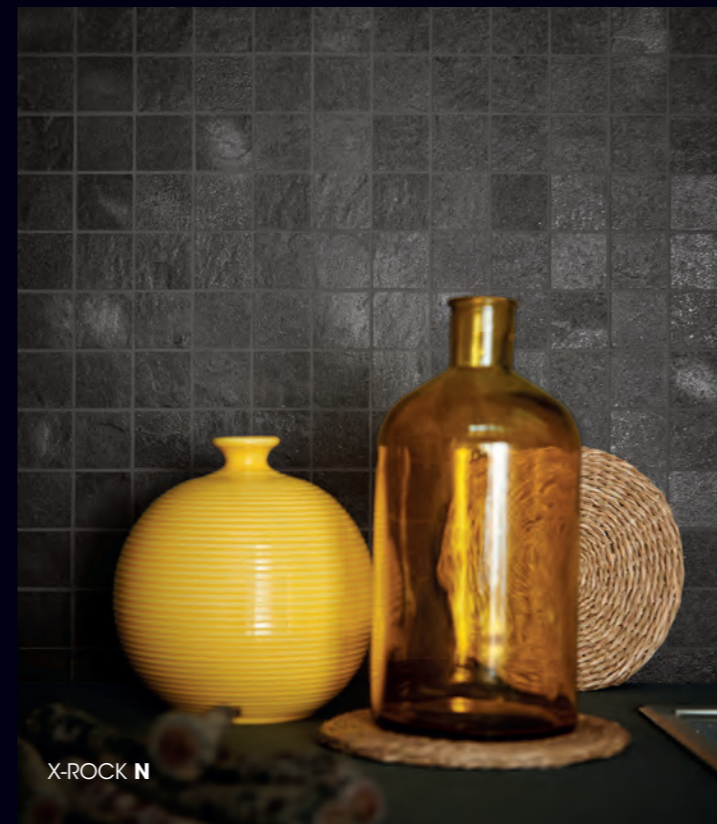
X-ROCK N



X-ROCK B



X-ROCK G



X-ROCK N

X-ROCK W

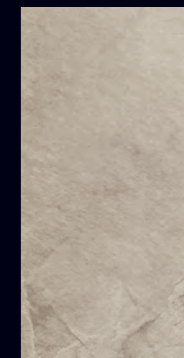


W 24"x48"
RECTIFIED EDGE



W 12"x24"
RECTIFIED EDGE

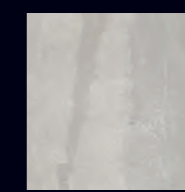
X-ROCK B



B 24"x48"
RECTIFIED EDGE



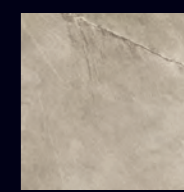
B 12"x24"
RECTIFIED EDGE



W 24"x24"
RECTIFIED EDGE



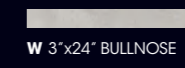
W 2"x2" MOSAIC
12"x12" SHEET



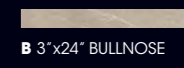
B 24"x24"
RECTIFIED EDGE



B 2"x2" MOSAIC
12"x12" SHEET



W 3"x24" BULLNOSE

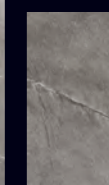


B 3"x24" BULLNOSE

X-ROCK G

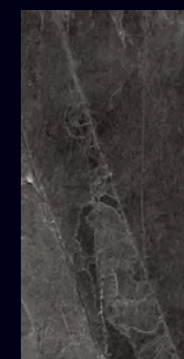


G 24"x48"
RECTIFIED EDGE



G 12"x24"
RECTIFIED EDGE

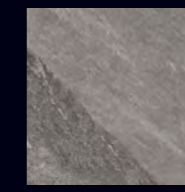
X-ROCK N



N 24"x48"
RECTIFIED EDGE



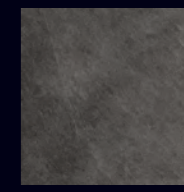
N 12"x24"
RECTIFIED EDGE



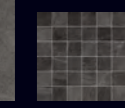
G 24"x24"
RECTIFIED EDGE



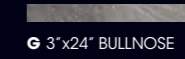
G 2"x2" MOSAIC
12"x12" SHEET



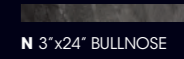
N 24"x24"
RECTIFIED EDGE



N 2"x2" MOSAIC
12"x12" SHEET



G 3"x24" BULLNOSE



N 3"x24" BULLNOSE