





Iconic, robust, versatile, enduring.

The Denim collection is influenced by jeans, in an unexpected new form of representation. Taking from and updating the distinctive properties that have always made jeans a ubiquitous icon of style.

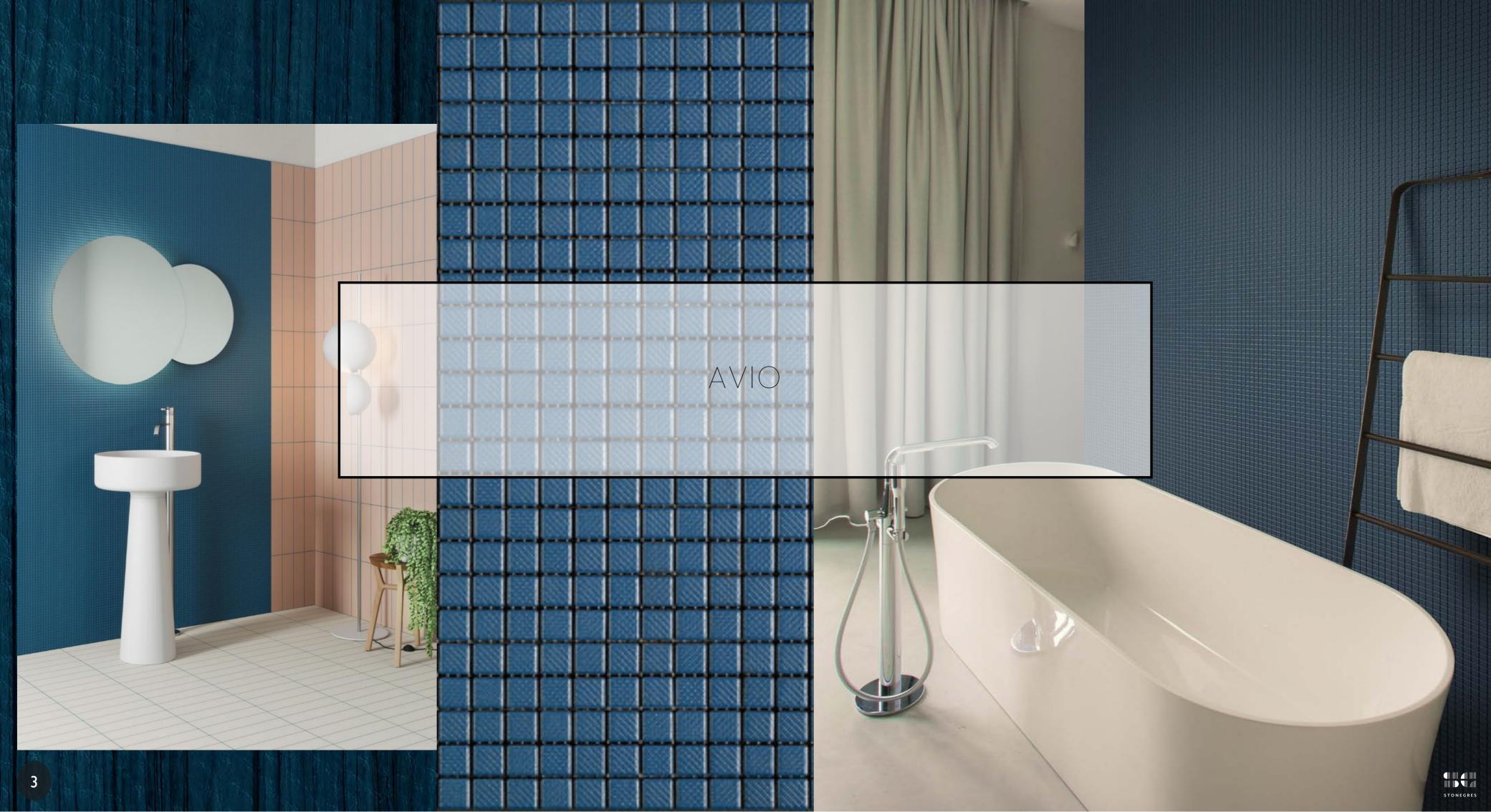
The material is impressed with an innovative new finish suitable for floors and walls.

The nature of the yarn used to make jeans is expressed in three patterns -Streaked/Striato, Wavy/Ondulato, Ruled/Sfilato – each developed in two different variantions, with different patterns and colours.

What changes is the relationship between warp and weft, the regularity of the stripes and weaves.

DENIM

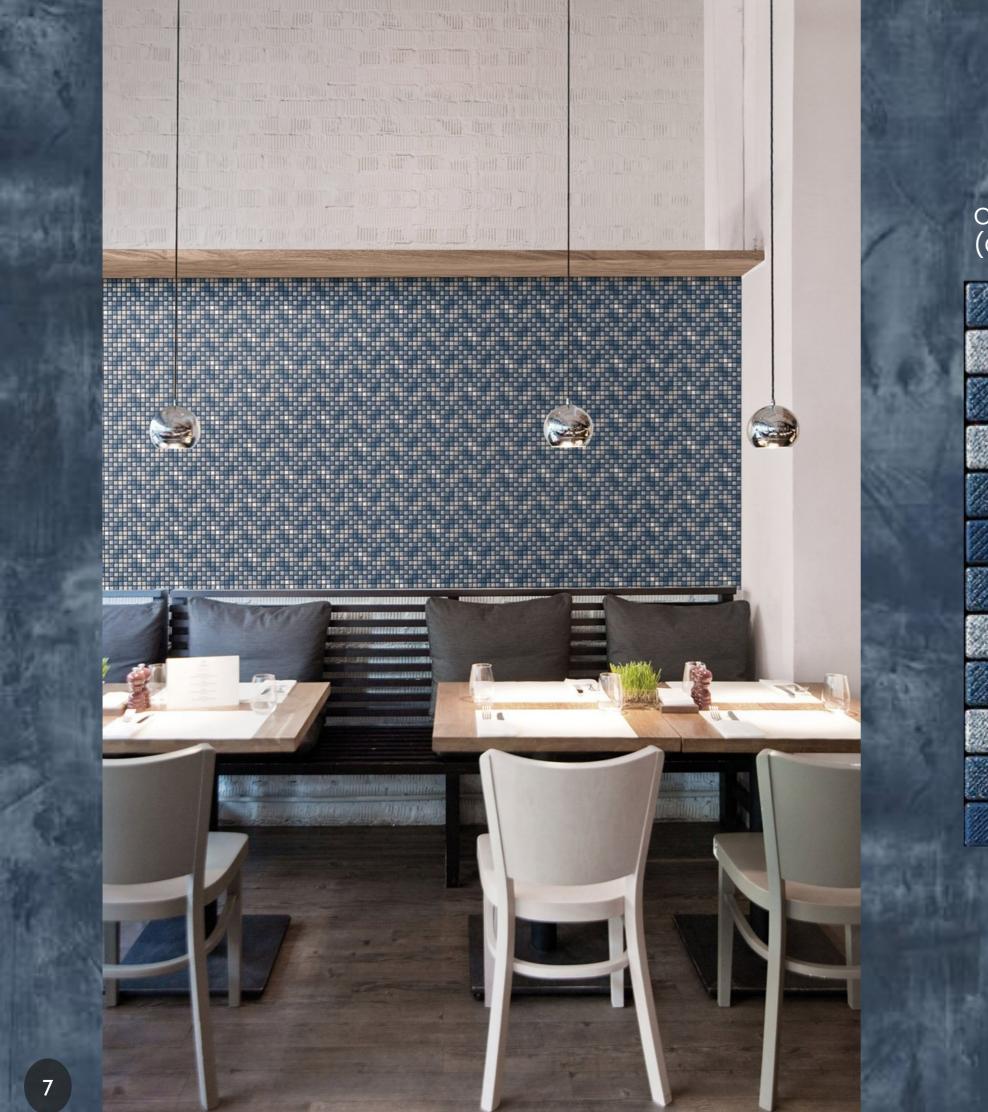
Intrecci POP POP weaves



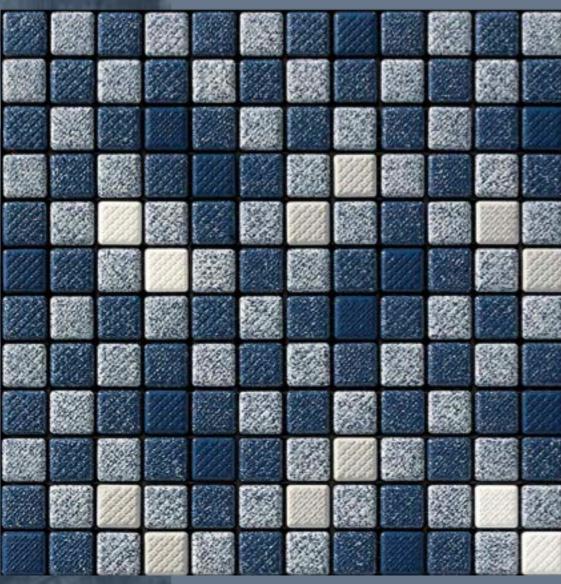








ONDULATO 02 (ONDU 002)



bianco tela















METALLICA bronzo



piombo



piombo 85



piombo 50

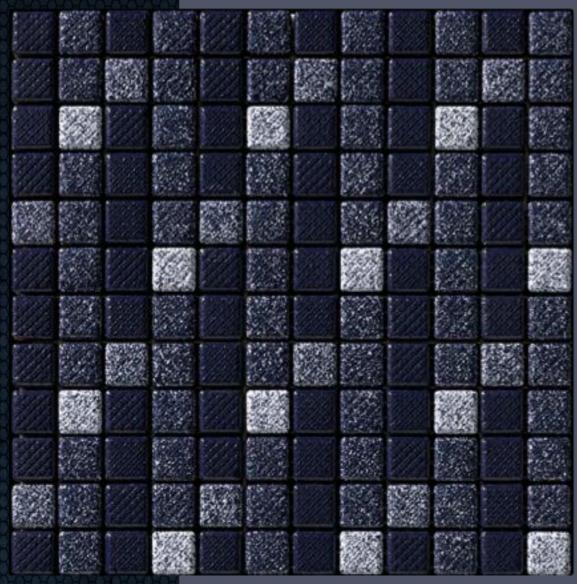


piombo 15









SFILATO 02 (SFIL 002)



oltramare



oltramare 85

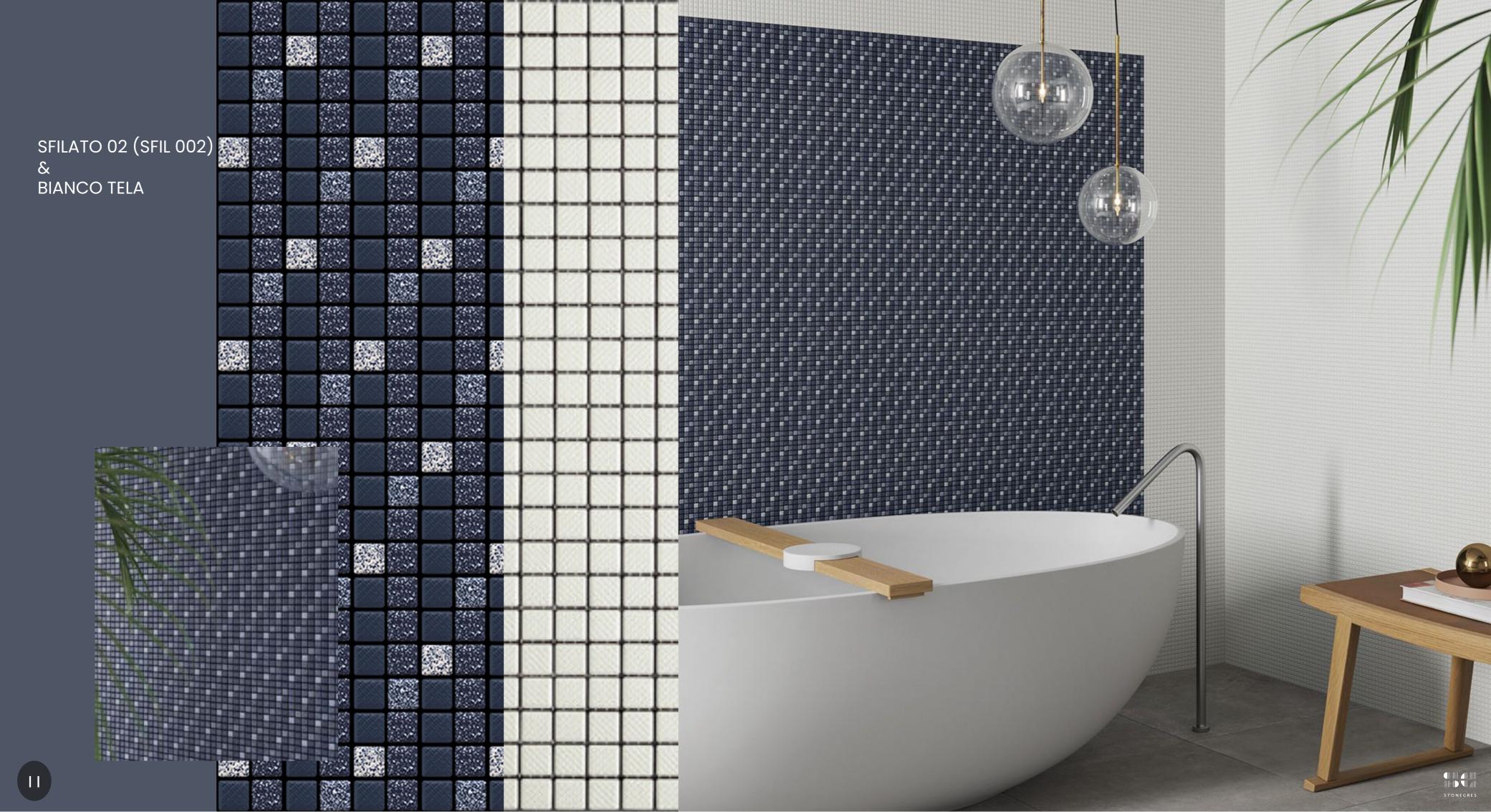


oltramare 50

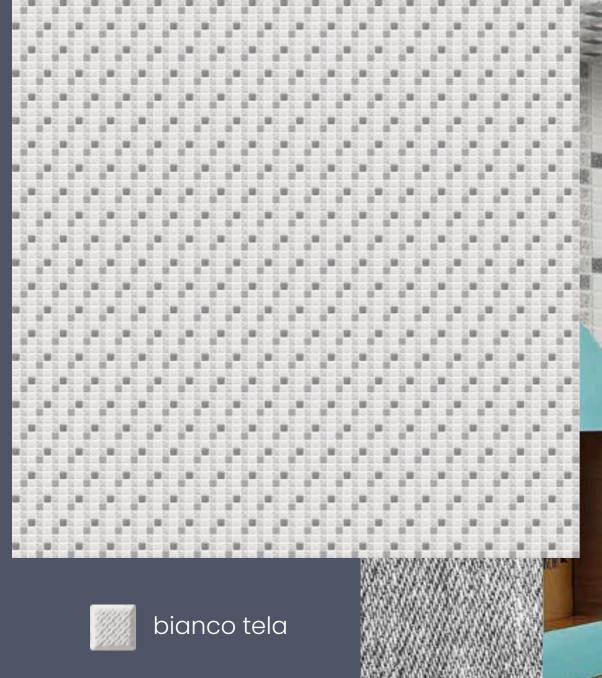


oltramare 15









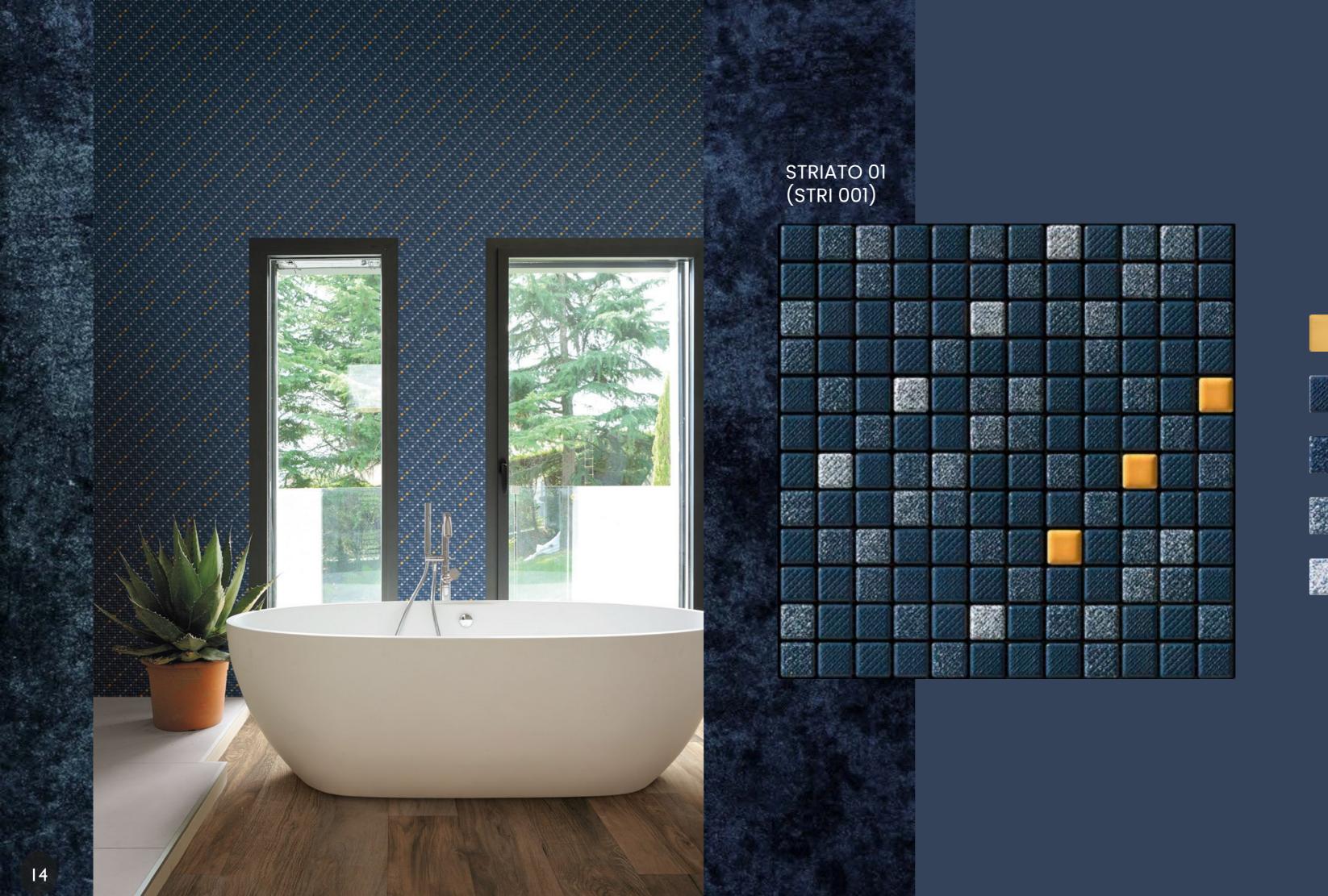














seta giallarancio

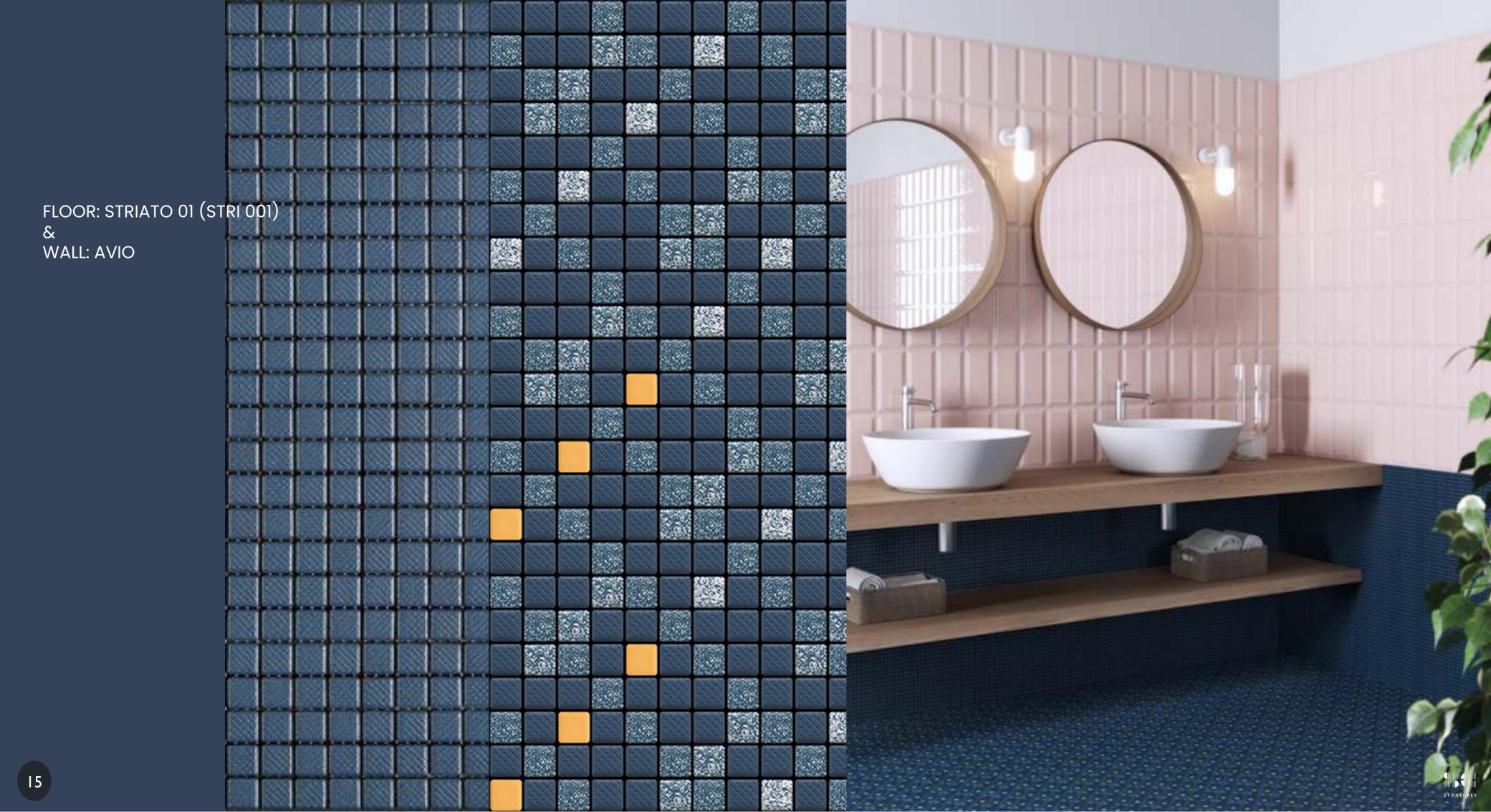


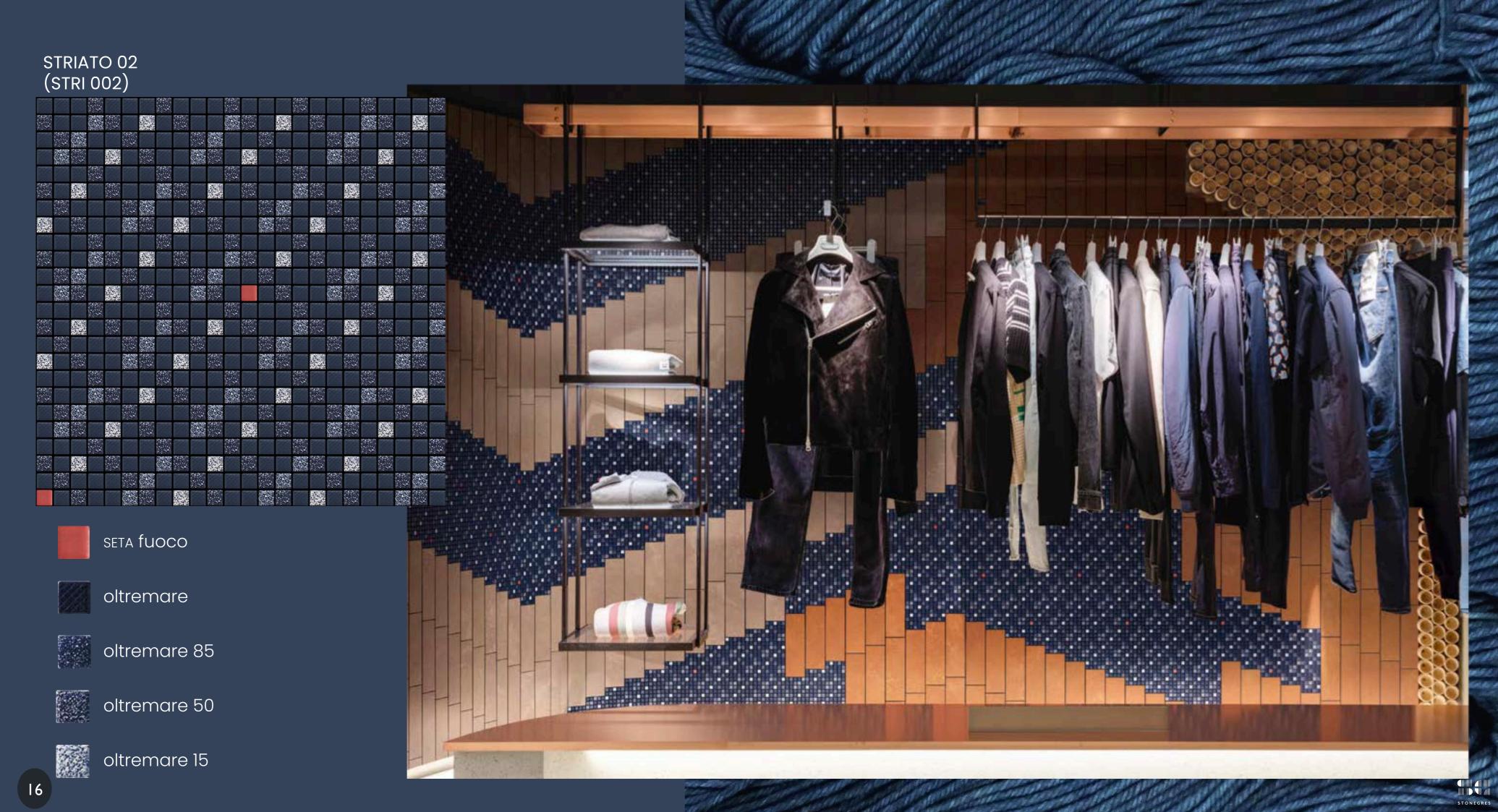






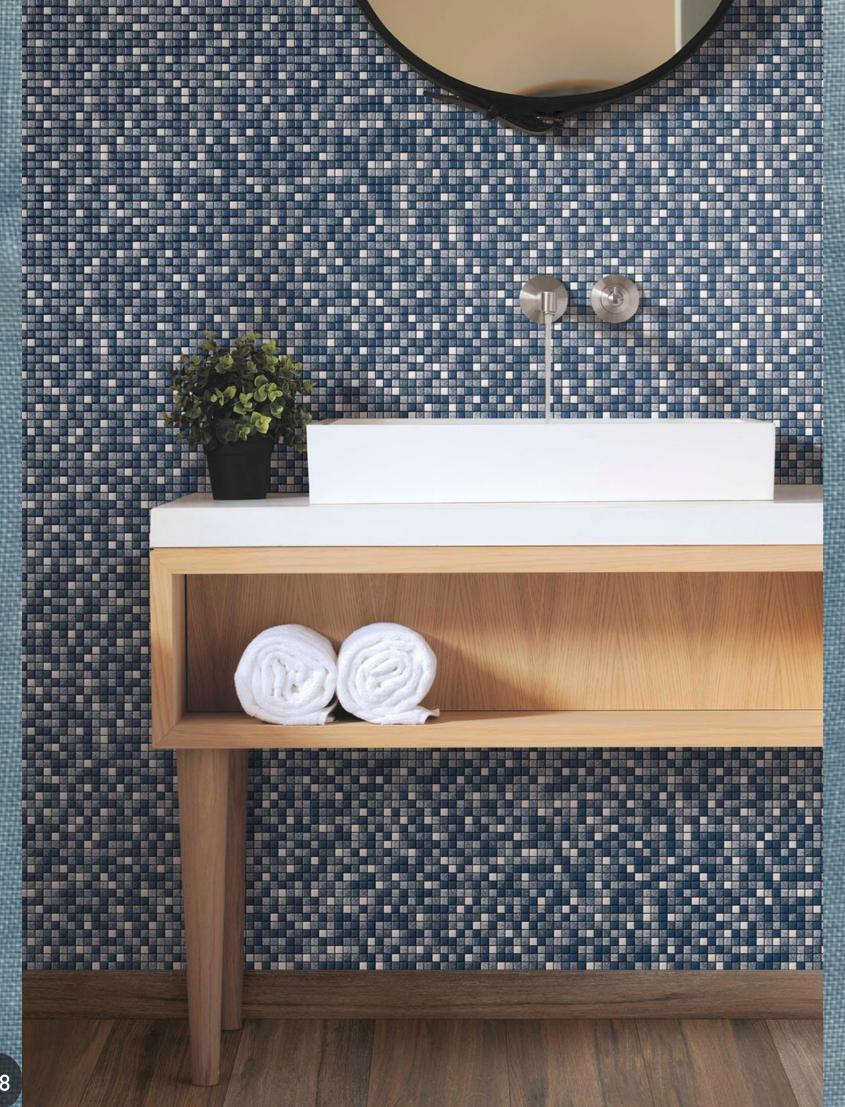




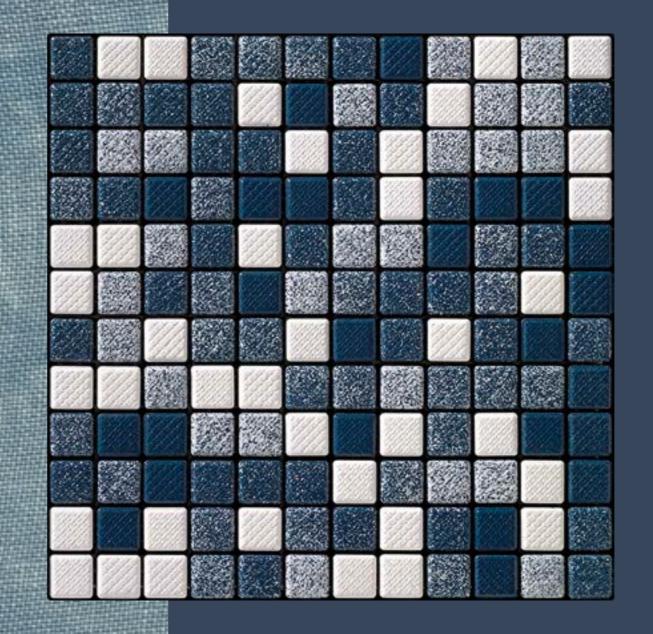








## MIX AVIO



















oltremare 85 (10%)

oltremare 50 (20%)

oltremare 15 (30%)









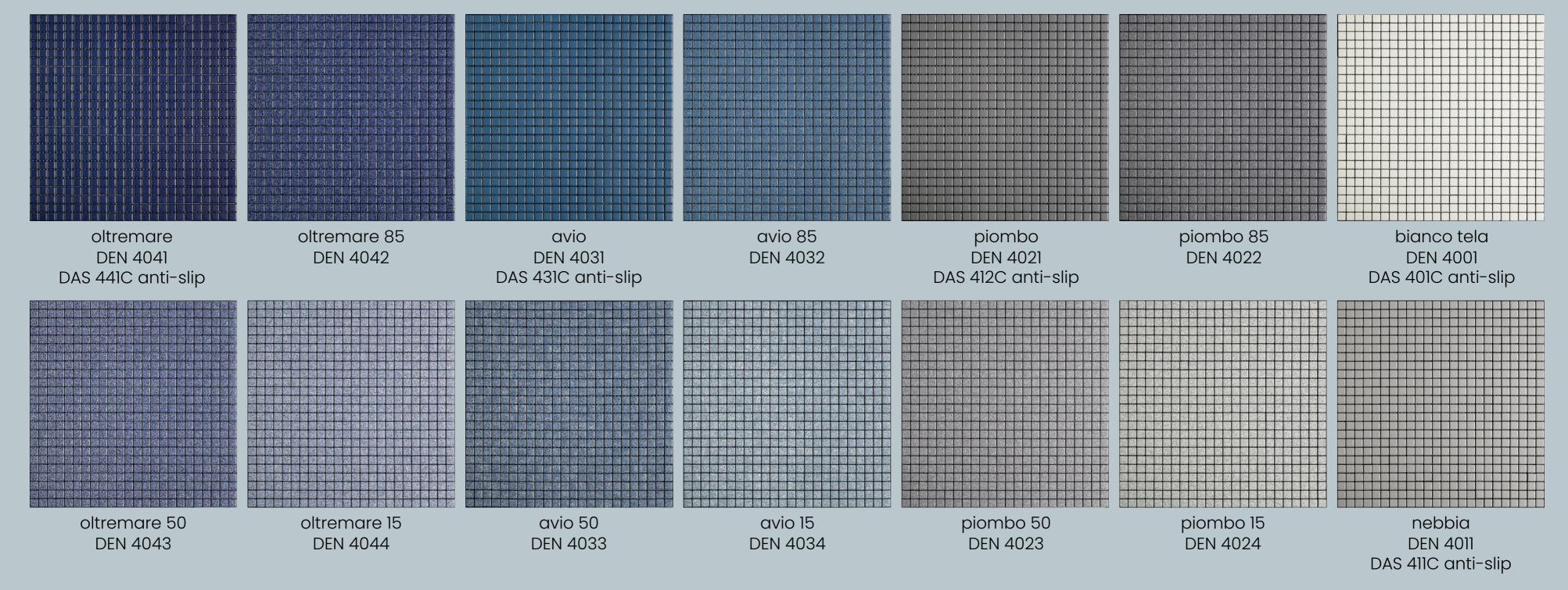




CUSTOMISED BLEND



## **COLOURS**



sheet size 300 x 300 mm (net mounted)

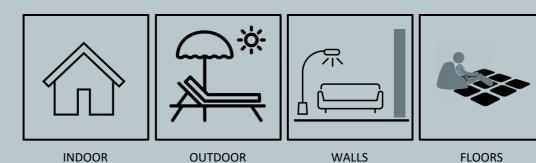
mosaic size 12 x 12 mm

abrasion coefficient:

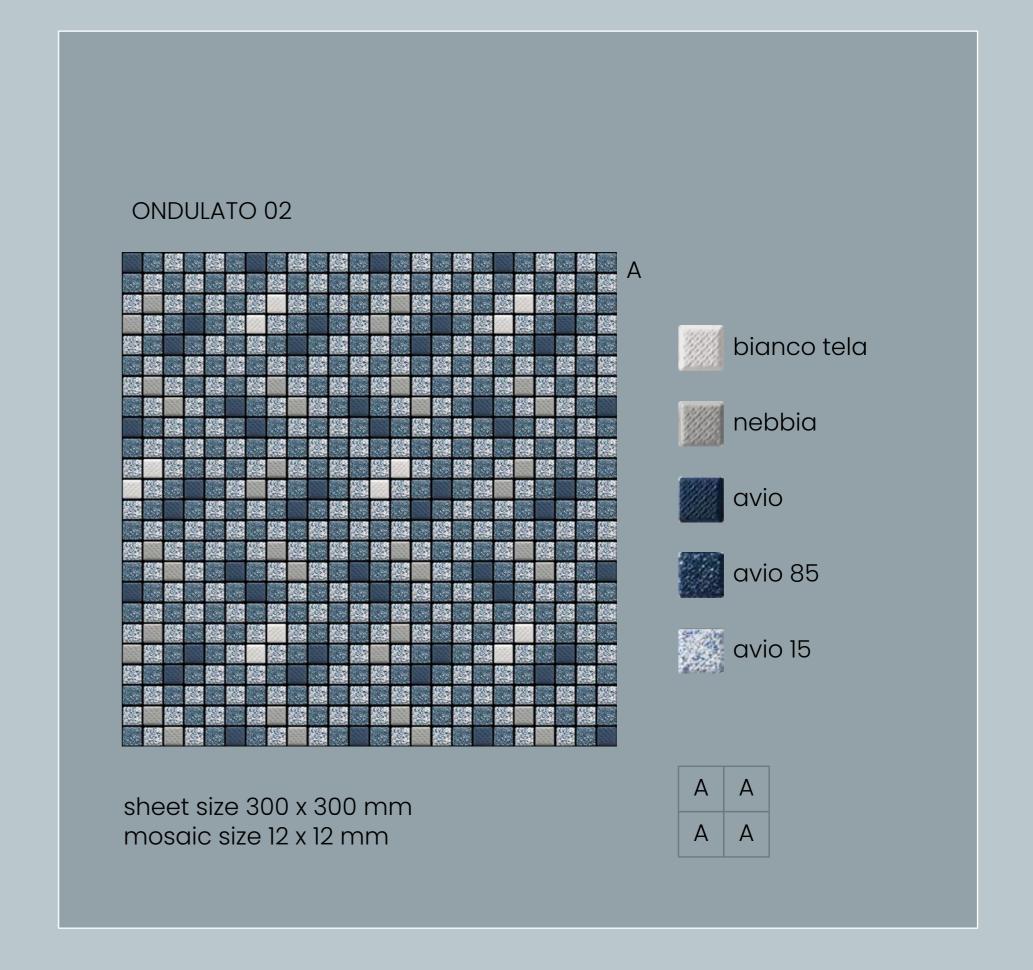
- (PEI) II OLTREMARE 50 | AVIO 85
- (PEI) III OLTREMARE 15 | AVIO | AVIO 50 | PIOMBO | PIOMBO 85 | PIOMBO 50
- (PEI) IV OLTREMARE | OLTREMARE 85 AVIO 15 | PIOMBO 15 | NEBBIA

(PEI) V BIANCO TELA

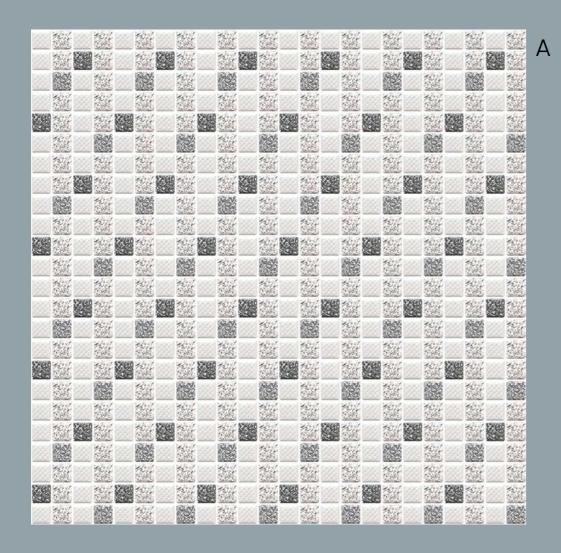
## application



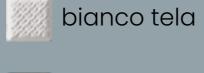
# ONDULATO 01 METALLICA bronzo piombo piombo 85 piombo 50 piombo 15 sheet size 300 x 300 mm mosaic size 12 x 12 mm

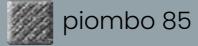


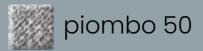
### SFILATO 01



sheet size 300 x 300 mm mosaic size 12 x 12 mm

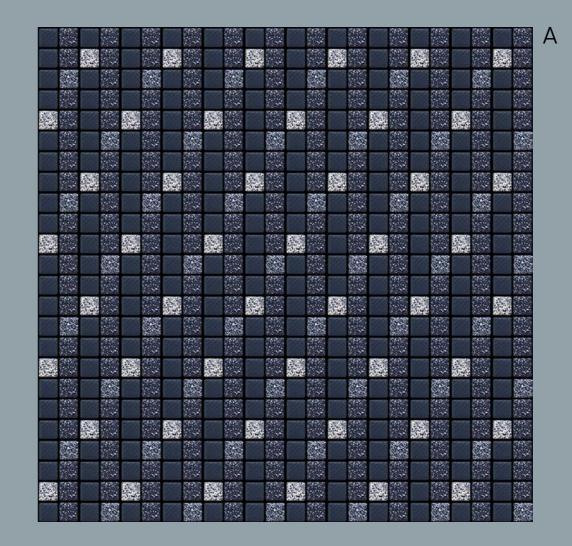






piombo 15

### SFILATO 02



sheet size 300 x 300 mm mosaic size 12 x 12 mm

oltremare



oltremare 85



oltremare 50



oltremare 15

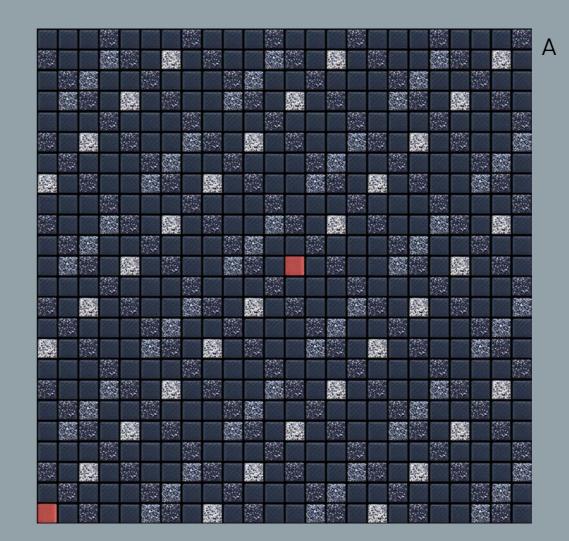






# STRIATO 01 SETA giallarancio avio avio 85 avio 50 avio 15 AA sheet size 300 x 300 mm mosaic size 12 x 12 mm

### STRIATO 02



sheet size 300 x 300 mm mosaic size 12 x 12 mm



SETA fUOCO



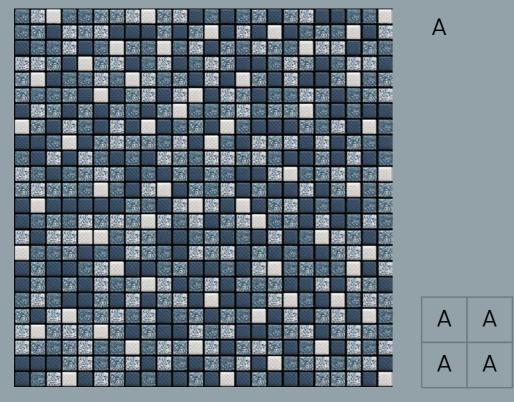




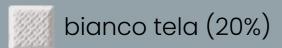
oltremare 15



## MIX AVIO



sheet size 300 x 300 mm mosaic size 12 x 12 mm



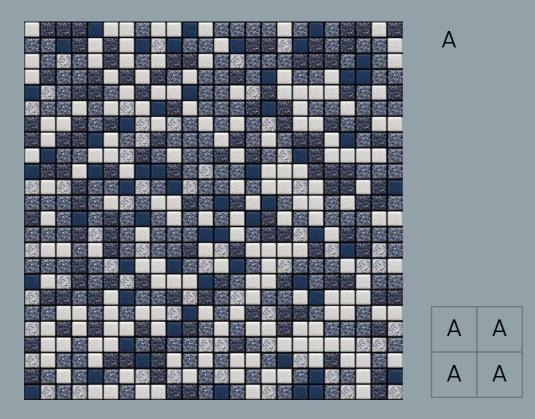
avio (20%)

avio 85 (20%)

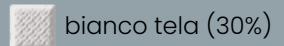
avio 50 (20%)

avio 15 (20%)

#### MIX OLTREMARE



sheet size 300 x 300 mm mosaic size 12 x 12 mm



oltremare (10%)

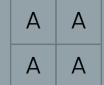
oltremare 85 (10%)

oltremare 50 (20%)

oltremare 15 (30%)

#### MIX PIOMBO



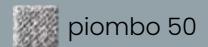


sheet size 300 x 300 mm mosaic size 12 x 12 mm

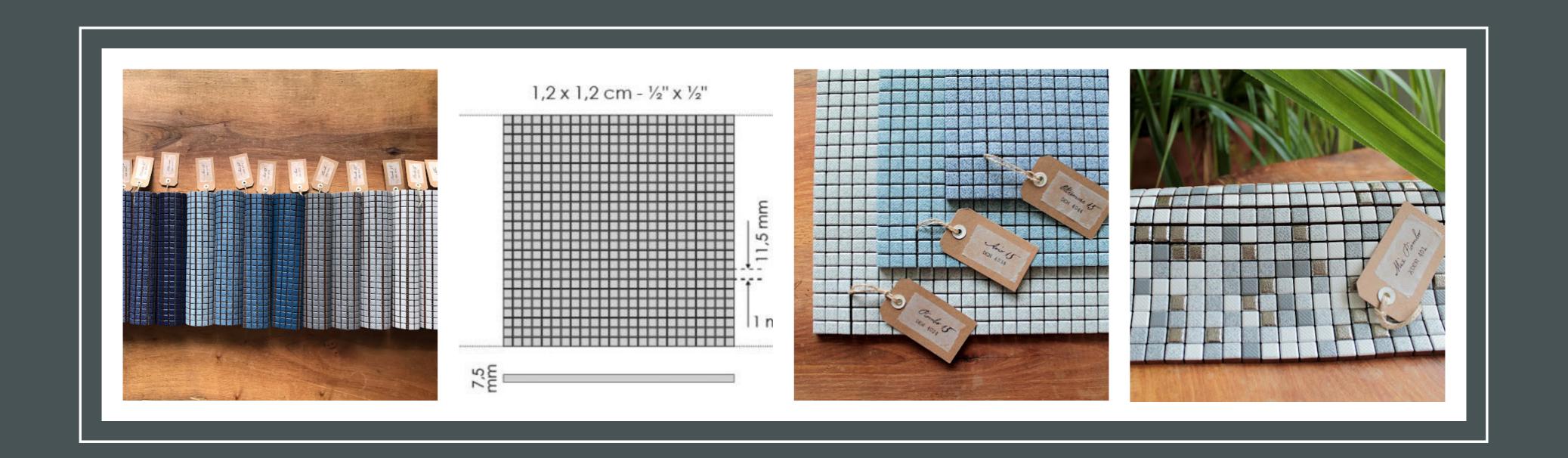












TECHNICAL CHARACTERISTICS











## TECHNICAL CHARACTERISTICS

The mosaic tesserae are supplied net mounted with a 1.6 mm joint on fiberglass net sheets sized 300x300 mm. Size 12x12 mm mosaic is supplied net mounted with a 1.1 mm joint.

The tesserae are 7.2 mm thick. The flatness of the ceramic mosaic tiles and the slight rounding of the edges make the product smooth and pleasant to the touch, also facilitating the hygiene maintenance.

Single press-firing makes it possible to obtain ceramic products that are virtually unique: previously-atomized glazes and clays are combined by permeation through dry pressing. The firing cycle, at a temperature of over 1200°C, enhances the exceptional aesthetic qualities, long life and resistance of the product. These characteristics make the products ideal for a wide range of different applications, both indoors and outdoors, and for both floors and wall tiling.

#### Appearance:

perpendicular sides and slightly rounded glazed surface, glossy, matt and natural. Maintenance: glaze does not retain dirt, total hygiene, easy to clean.

#### Features:

highly resistant to knocks, stains and abrasion, surfaces resistant to chemical agents and molds.

#### Versatility:

adaptable to any type of architecture, changes the appearance of the colour depending on the grouting.

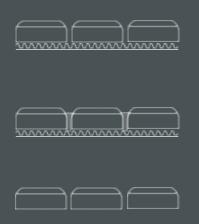
#### The environment:

technological innovation, control of the production cycle steps, ongoing commitment to environmental protection, products 100% made in Italy.

The ceramic mosaic has unique features that set it apart from glass mosaics and make it one of a kind. Perpendicular sides, flat masonry and a slightly rounded glazed surface allow for perfect adhesion of the tiles during installation. Absolutely perfect in terms of aesthetics and shape, these mosaics result in projects and decorations that preserve their beauty and resistance over time.



## TECHNICAL CHARACTERISTICS



#### **CERAMIC MOSAICS GRIP**

Maximum contact surface for gluing -

Glue can be spread all over the tile - Glue adheres completely, forming a single body with the stoneware surface - Will not come away over time

#### JOINT FILLING

Fills the whole joint and glue adheres perfectly, because the spaces are even and wide enough - Filler is compact, guaranteeing the hold of the tesserae in water and ensuring they do not come away

#### SIDES AND THICKNESS

Perpendicular sides and slightly rounded glazed surface - Maximum mechanical hold thanks to the "spike"effect of the filler - Excellent resistance to lateral thrust

#### WARPAGE

Even surface - Pleasant to the touch

#### TRANSPARENCY

Totally opaque glaze - Colour remains stable over time

#### CLEANING AND HYGIENE

Even surface - Glaze does not retain dirt - Total hygiene - Easy to clean



#### **GLASS MOSAICS GRIP**

Limited contact surface for gluing - Adheres with difficulty due to vinyl glue residue on the back of the tesserae - glassy surface repels the adhesive - Risk of the tesserae coming away over time

#### **JOINT FILLING**

Difficult to fill the whole joint because of the small, uneven spaces - Filler tends to partially erode if submerged in water where algae form; possibility of the tesserae coming away

#### SIDES AND THICKNESS

Slanted sides with the joint thrusting outwards - Minimum lateral hold of the joint - Considerable reduction in mechanical hold

#### WARPAGE

Uneven surface - Unpleasant to the touch

#### **TRANSPARENCY**

Loss of brightness - Change in colour

#### **CLEANING AND HYGIENE**

Uneven surface - Dirt takes hold - Minimum hygiene - Difficult to clean



## ISO: DENIM

## Single press-firing

glazed ceramic tiles, dry pressed with low water absorption 0.5%<E≤3% - group B I b - M - GL - EN 14411 appendix H

		standard	tolerances	results
SURFACE DIMENSIONS & QUALITIES	sides 298.4X298.4 mm	EN ISO 10545-2	± 0.5.%	± 0.2.%
	thickness 298.4x298.4 mm	EN ISO 10545-2	± 5%	± 4.%
	straightness of edges	EN ISO 10545-2	± 0.5%	± 0.4%
	squareness	EN ISO 10545-2	± 0.6%	± 0.4%
	surface qualities	EN ISO 10545-2	< 95%	< 95%
	surface flatness	EN ISO 10545-2	± 0.5%	± 0.4%

## TECHNICAL CHARACTERISTICS

physical properties	standard	requirements	results
WATER ABSORPTION	ISO 10545-3	0.5% < E ≤ 3% appendix H	≤ 1%
BREAKING STRENGTH IN N	ISO 10545-4	700 min. appendix H	> 1800
FLEX RESISTANCE	ISO 10545-4	30 min. appendix H	> 50 N/mm <sup>2</sup>
IMPACT RESISTANCE	ISO 10545-5	testing method available	> 0.6 (appendix P)
ABRASION RESISTANCE	ISO 10545-7	indicated by producer	see colours notes
COEFFICIENT OF THERMAL LINEAR EXPANSION	ISO 10545-8	testing method available	< 7·10-6/°C
THERMAL SHOCK RESISTANCE	ISO 10545-9	testing method available	guaranteed
MOISTURE EXPANSION	ISO 10545-10	testing method available	< 0.04%
CRAZING RESISTANCE	ISO 10545-11	required	guaranteed
FROST RESISTANCE	ISO 10545-11	required	guaranteed



## ISO: DENIM

## Single press-firing

glazed ceramic tiles, dry pressed with low water absorption 0.5%<E≤3% - group B I b - M - GL - EN 14411 appendix H

chemical properties	standard	requirements	results
	EN ISO 10545-13		
CHEMICAL RESISTANCE	resistance to chemical products for housekeeping & to the additives used in swimming pools	B min	А
	resistance to diluted acid & alkali solutions	indicated by producer	LA
	resistance to highly concentrated acid & alkali solutions	testing method available	НА
FIRE RESISTANCE		decision 96/603/CE	class A1
STAIN RESISTANCE	EN ISO 10545-14	class 3 min.	5 resistant
Pb Cd LEAD & CADIUM DISCHARGE	EN ISO 10545-15	testing method available	on request
RESISTANCE OF COLOURS TO SUNLIGHT	DIN 51094	not envisaged	guaranteed

## TECHNICAL CHARACTERISTICS

### CLASSIFICATION

	standard	requisites	classification group
	DIN 51130 (feet with shoes on)	6° ÷ 10°	R9
ASSESSMENT OF SLIP RESISTANCE		10° ÷ 19°	R10
		19° ÷ 27°	RII
		27° ÷ 35°	R12
		> 35°	R13
	DIN 51097 (feet with shoes on)	< 12°	0
		≥ 12°	А
		≥ 18°	В
		≥ 24°	С

## DENIM (DEN)

	standard	nominal shape	results
ASSESSMENT OF SLIP RESISTANCE	CE DIN 51130	12x12 mm – ½" x ½"	R9 (7.2°)
	DIN 51097	12x12 mm - ½" x ½"	B (A+B) (19.7°)

## DENIM (DAS)

	standard	nominal shape	results
ASSESSMENT OF SLIP RESISTANCE	DIN 51130	12x12 mm – ½" x ½"	R11 (22.2°)
	DIN 51097	12x12 mm – ½" x ½"	C (A+B+C) (31°)



## Single press-firing

physical properties	standard	requirements	results
WATER ABSORPTION	ASTM C373	0.5% < wa ≤ 3%	≤ 3% class P2
BREAKING STRENGTH IN Ibf	ASTM C648	≥ 250 lbf	≥ 250 lbf
THERMAL SHOCK RESISTANCE	ASTM C484	testing method available	guaranteed
CRAZING RESISTANCE	ASTM C242	required	guaranteed
FROST RESISTANCE	ASTM C1026	required	guaranteed

chemical properties	standard	requirements	results
CHEMICAL RESISTANCE	ASTM C650	indicated by producer	guaranteed
STAIN RESISTANCE	ASTM C1378	required	guaranteed

	test method	requisites	results	
	ASSESSMENT OF SLIP RESISTANCE	ANSI A137.1 (DEN test)	DCOF > 0.42	0.47
		ANSI A137.1 (DAS test)	DCOF > 0.42	0.69

Single press-firing: dry-pressed ceramic tiles obtained with single-press kiln firing, with low water absorption. 0,5% < E ≤ 3% Group B I b - M - GL - EN 14411 appendix H (sizes 1,2x1,2 - 2,5x2,5 - 5x10 - 10x10 cm). Slow firing cycle. Freeze resistant.







Stonegres Limited
20-22 Wenlock Road
London
N1 7GU
tel: 020 8943 3154
info@stonegres.co.uk | www.stonegres.co.uk