# Pool

www.togama.com

MADE IN SPAIN

TOGAMA

MORE THAN MOSAIC

## Continuous improvement.

In 2009, we started with the LEAN method. The Lean methodology consists in improving all the processes of the creation, the start-up and the development of the company thanks to a general attitude which lays the foundations for a stabilization of the circuits and a continuous detection of errors or points to be improved.

LEAN

## 24-hour service.

We strive to improve and grow every day. For this reason, we offer our customers 24-hour service.



## Production process.

TOGAMA produces pressed glass mosaic and subsequently processed in the kiln. Developed and engineered to resist chemicals, freezing, stain resistance, abrasion, solar radiation, temperature changes. Due to its inalterability and 0 porosity, it's easy to clean and to place, ideal for covering swimming pools, wellness, as decorative solutions for interior and exterior spaces.

TILE OF SPAIN

100%

RECYCLED GLASS

## International expansion.

65% export
We are present in 74 countries.
Knowledge and adaptation to the characteristics of each market.




CEVISAMA CERSAIE BOLOGNA • ITALY Coverings

## International fairs.

Presence in the main international fairs of the ceramics field and other related products infected by the process of continuous innovation.

TOGAMA
MORE THAN MOSAIC

## Quality and Environment Policy.

TOGAMA defines and revises its quality and environment policy in order to guarantee its continuous adaptation to the objective of the organization, its main objective being to increase and maintain customer satisfaction and to prevent pollution and protection of the environment.

ECO FRIENDLY

## ISO quality. 9001 / 14001

Quality should not be offered only and exclusively in finished products, but should be present throughout the production process, including manufacturing.
Today, betting on quality is a philosophy that aims for longterm success (profitability, growth and safety).

Registered Company nº 30350001

## Social Networks.

Networks are changing the way information is shared.
We share product images, design trends, relevant company information and a presence at international events.




## R & D

Togama has an R&D department to keep a constant evolution of new products and the improvement of the existing ones, which allows us to be on the leading edge in term of production of recycled glass mosaic.

INKFINITY
DIGITAL MOSAIC



UNNION POLYREUTHANE SYSTEM

Technology is the foundation on which we build to execute our strategies and innovate in the experience of our customers.

Resistance
Durability
Easy installation
Flexibility
Does not invade the joints
Excellent Grip




INKFINITY — 7 NOVEDAD / NEWS / NOUVEAUTÉS — **BORA** STONE **MIST** STONE **MYTHOS**

LAGOON COLLECTION — 33 LAGOON

41 BLANCOS / WHITE / *BLANC*

55 AZULES / BLUE / *BLEU*

87 VERDES / GREEN / *VERT*

109 NEGROS / BLACK / *NOIR*

121 MARRONES / BROWN / *MARRON*

135 COMBIS / MIX / *MÉLANGES*

145 ESPECIAL / SPECIAL / SPÉCIAL

149 DISEÑOS PERSONALIZADOS / CUSTOM DESIGNS / *DESSINS PERSONNALISÉS*

169 CARACTERISTICAS TECNICAS / TECHNICAL FEATURES / CARACTÉRISTIQUES TECHNIQUES

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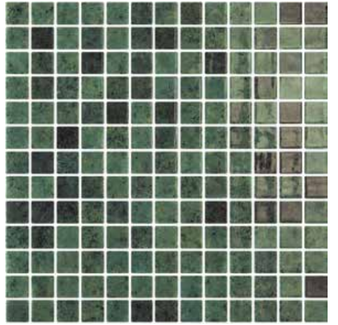




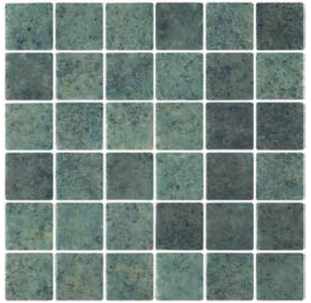




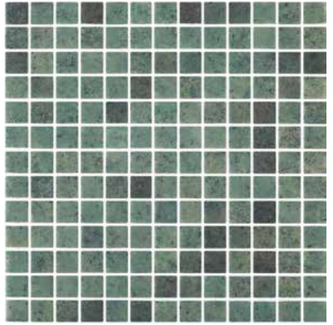
**JADE 5X5**
31 x 31 cm. | 12,2" x 12,2"
JADE50Y **I5**



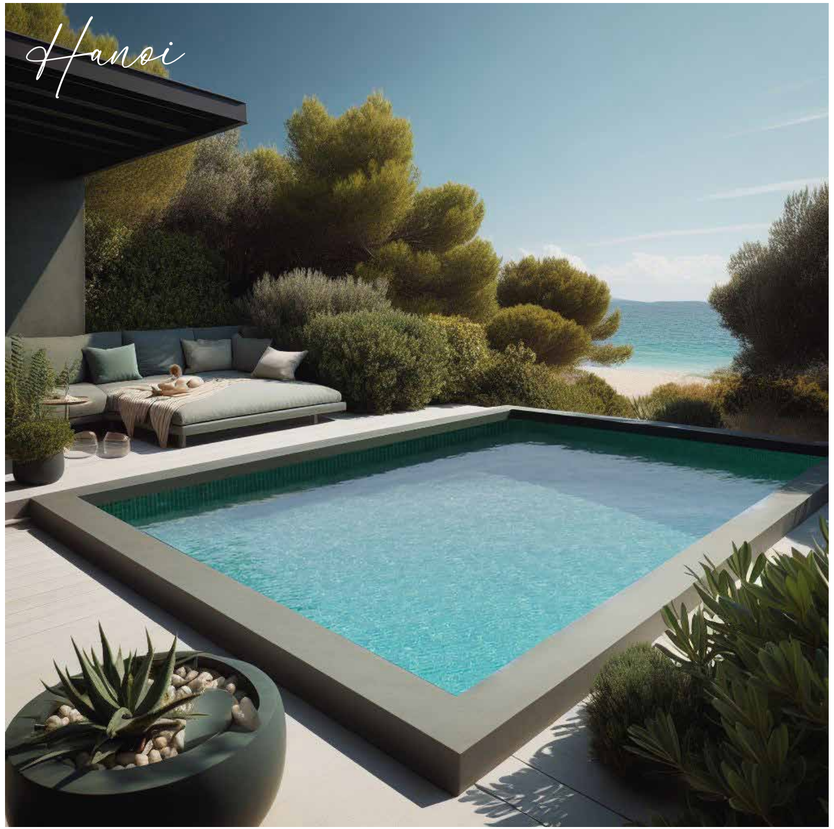
**JADE**
33,4 x 33,4 cm. | 13,1" x 13,1"
JADE25Y **I1**



**MATT JADE 5X5**
31 x 31 cm. | 12,2" x 12,2"
JADE50AY **I4**



**MATT JADE**
33,4 x 33,4 cm. | 13,1" x 13,1"
JADE25AY **I2**

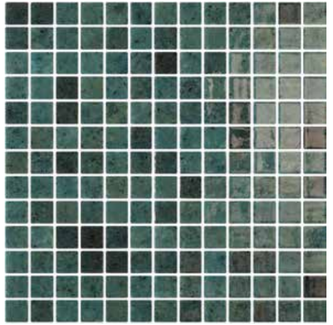








**HANOI 5X5**
31 x 31 cm. | 12,2" x 12,2"
HANO50Y **I3**



**HANOI**
33,4 x 33,4 cm. | 13,1" x 13,1"
HANO25Y **I1**

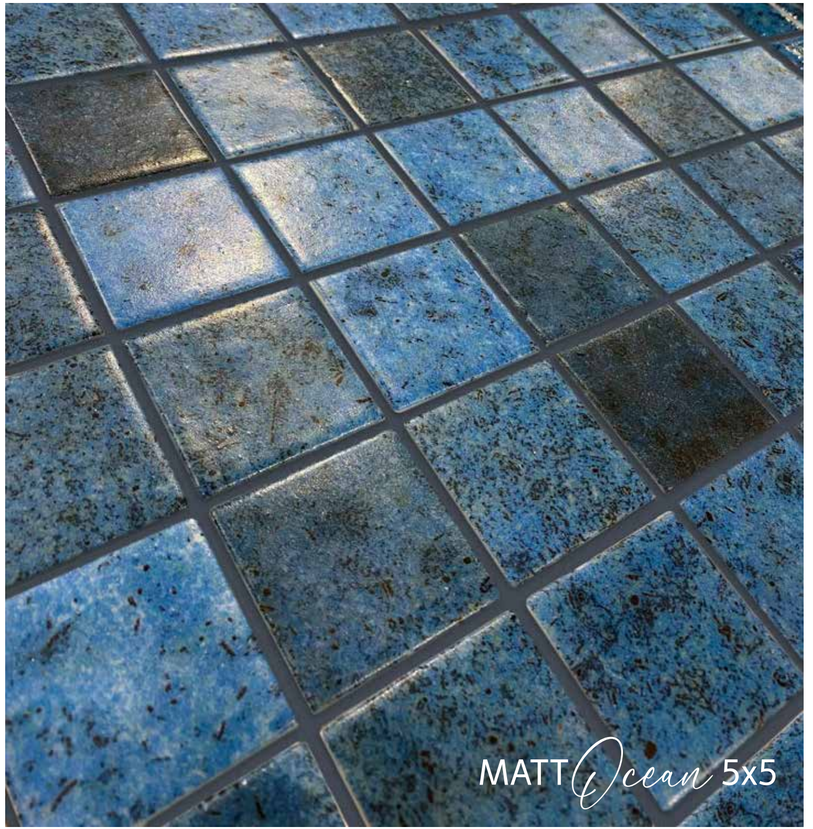


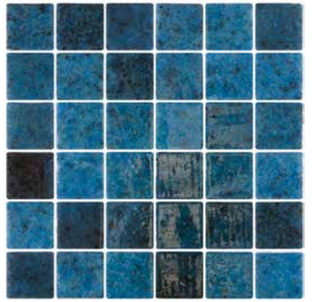
**MATT HANOI 5X5**
31 x 31 cm. | 12,2" x 12,2"
HANO50AY **I4**



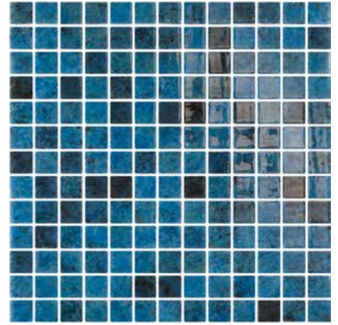
**MATT HANOI**
33,4 x 33,4 cm. | 13,1" x 13,1"
HANO25AY **I2**



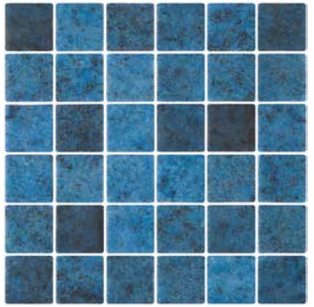



**OCEAN 5x5**
31 x 31 cm. | 12,2" x 12,2"
OCEA50Y **I3**



**OCEAN**
33,4 x 33,4 cm. | 13,1" x 13,1"
OCEA25Y **I1**



**MATT OCEAN 5x5**
31 x 31 cm. | 12,2" x 12,2"
OCEA50AY **I4**



**MATT OCEAN**
33,4 x 33,4 cm. | 13,1" x 13,1"
OCEA25AY **I2**

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**MATT CLAY 5x5**
31 x 31 cm. | 12,2" x 12,2"
CLAY50AY **I4**



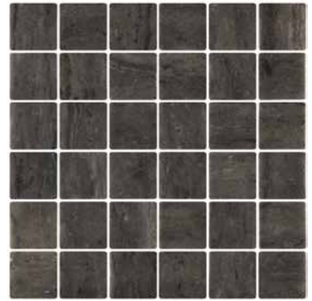
**MATT SAND 5x5**
31 x 31 cm. | 12,2" x 12,2"
SAND50AY **I4**









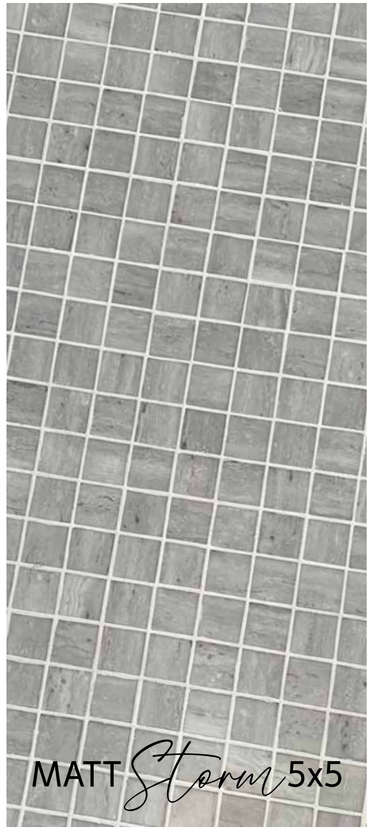



**MATT NERO 5X5**
31 x 31 cm. | 12,2" x 12,2"
NERO50AY **I4**



**MATT SNOW 5X5**
31 x 31 cm. | 12,2" x 12,2"
SNOW50AY **I4**









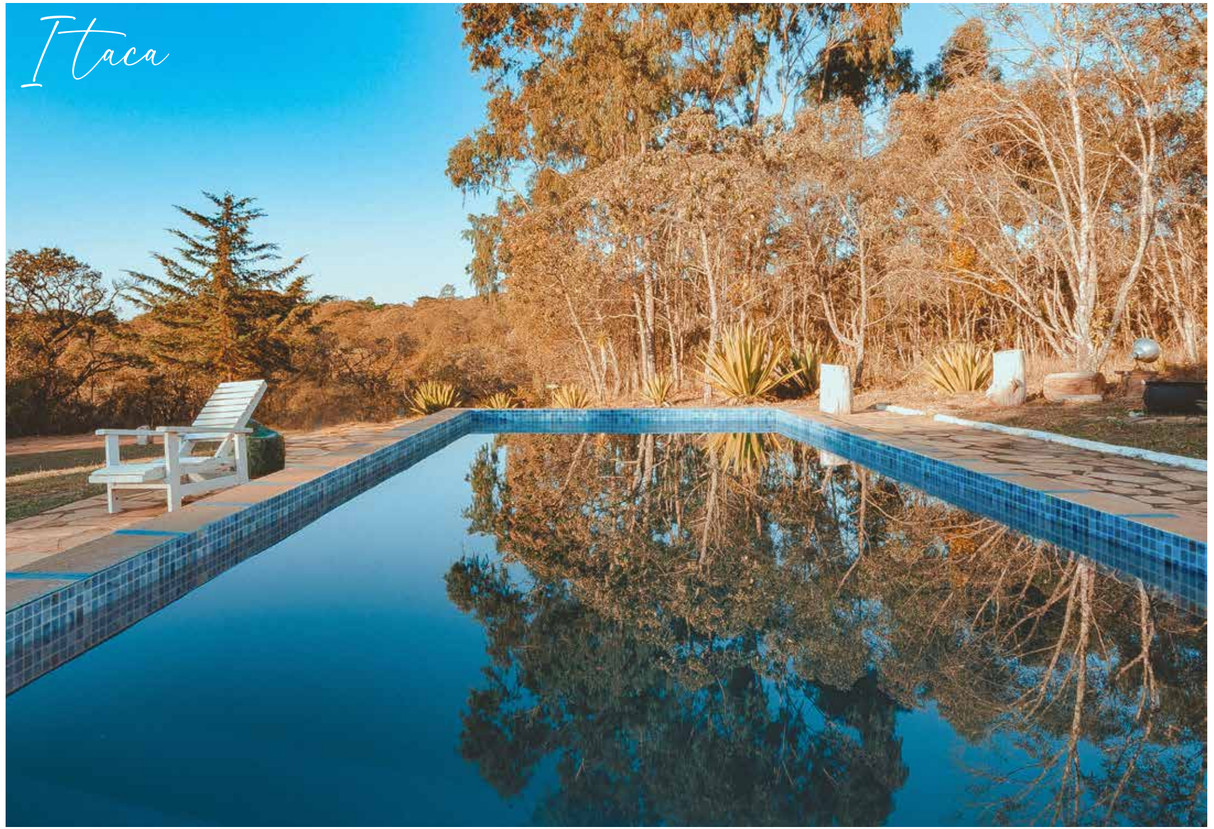
**MATT STORM 5X5**
31 x 31 cm. | 12,2" x 12,2"
STOR50AY **I4**



**MATT CLOUD 5X5**
31 x 31 cm. | 12,2" x 12,2"
CLOU50AY **I4**

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**ITACA**
33,4 x 33,4 cm. | 13,1" x 13,1"
ITAC25Y **I1**



**MATT ITACA**
33,4 x 33,4 cm. | 13,1" x 13,1"
ITAC25AY **I2**









**FEROE**
33,4 x 33,4 cm. | 13,1" x 13,1"
FERO25Y **I1**



**CORFÚ**
33,4 x 33,4 cm. | 13,1" x 13,1"
CORF25Y **I1**



**MATT FEROE**
33,4 x 33,4 cm. | 13,1" x 13,1"
FERO25AY **I2**



**MATT CORFÚ**
33,4 x 33,4 cm. | 13,1" x 13,1"
CORF25AY **I2**









**MILOS**
33,4 x 33,4 cm. | 13,1" x 13,1"
MILO25Y **I1**



**DELFOS**
33,4 x 33,4 cm. | 13,1" x 13,1"
DLFS25Y **I1**

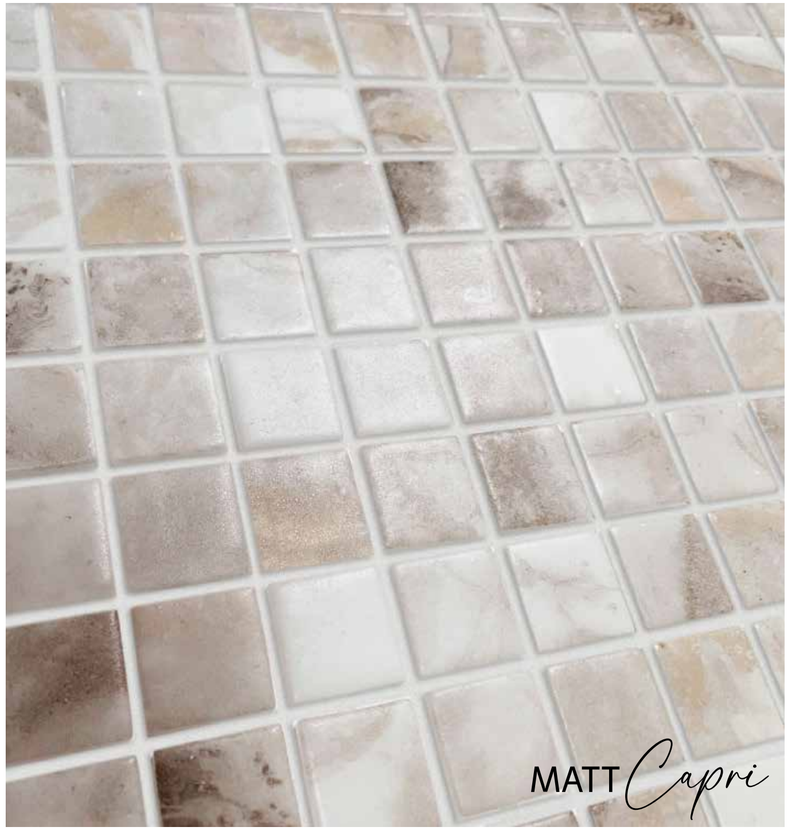


**MATT MILOS**
33,4 x 33,4 cm. | 13,1" x 13,1"
MILO25AY **I2**



**MATT DELFOS**
33,4 x 33,4 cm. | 13,1" x 13,1"
DLFS25AY **I2**






**CAPRI**
33,4 x 33,4 cm. | 13,1" x 13,1"
CAPR25Y **I1**



**ELBA**
33,4 x 33,4 cm. | 13,1" x 13,1"
ELBA25Y **I1**



**MATT CAPRI**
33,4 x 33,4 cm. | 13,1" x 13,1"
CAPR25AY **I2**



**MATT ELBA**
33,4 x 33,4 cm. | 13,1" x 13,1"
ELBA25AY **I2**

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PROJECT
**RESIDENTIAL POOL**

NIEBLA TIKAL 5X5

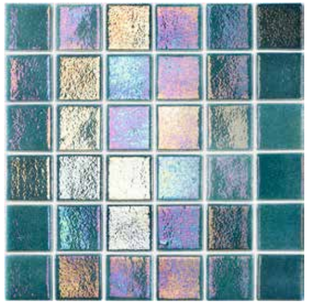




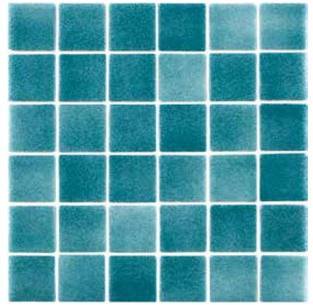




**NIEBLA TIKAL 5X5**
31 x 31 cm. | 13,15" x 13,15"
NIVT50Y **A11** NIEBLA



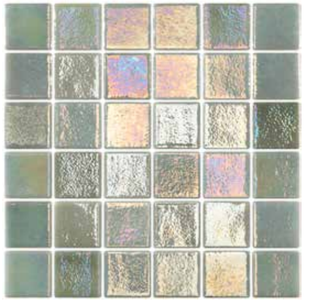
**G326 5X5**
31 x 31 cm. | 13,15" x 13,15"
G32650Y **C5** NIEBLA



**NIEBLA TIKAL ANTI 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIVT50AY **B8** NIEBLA ANTIDESLIZANTE



**NIEBLA KOH PAI 5X5**
31 x 31 cm. | 13,15" x 13,15"
NIKO50Y **A11** NIEBLA



**G340 5X5**
31 x 31 cm. | 13,15" x 13,15"
G34050Y **C5** NIEBLA



**NIEBLA KOH PAI ANTI 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIKO50AY **B8** NIEBLA ANTIDESLIZANTE



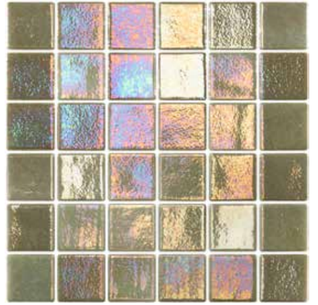








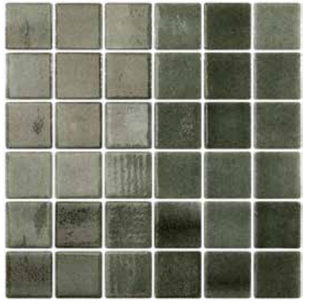
**NIEBLA BACAN 5X5**
31 x 31 cm. | 13,15" x 13,15"
NIBA50Y **A11** NIEBLA



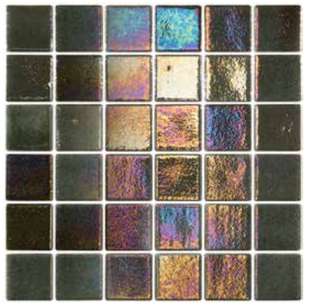
**G341 5X5**
31 x 31 cm. | 13,15" x 13,15"
G34150Y **C5** NIEBLA



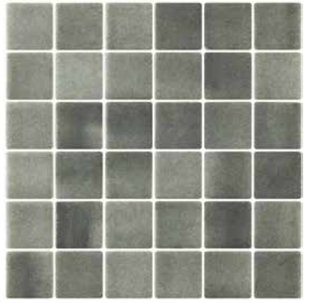
**NIEBLA BACAN ANTI 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIBA50AY **B8** NIEBLA ANTIDESLIZANTE



**NIEBLA JAVA 5X5**
31 x 31 cm. | 13,15" x 13,15"
NIJA50Y **A11** NIEBLA



**G342 5X5**
31 x 31 cm. | 13,15" x 13,15"
G34250Y **C5** NIEBLA



**NIEBLA JAVA ANTI 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIJA50AY **B8** NIEBLA ANTIDESLIZANTE

PROJECT
**RESIDENTIAL POOL**

NIEBLA CHUKUM ANTI 5X5



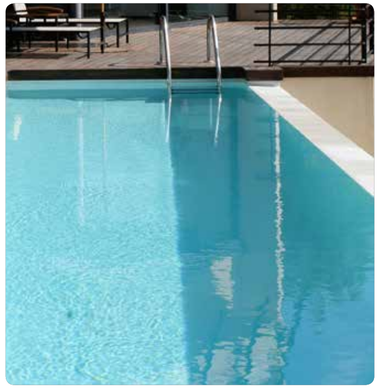


**NIEBLA CHUKUM ANTI 5X5**
31 x 31 cm. | 13,15" x 13,15"
CHUK50AY **B8** NIEBLA ANTIDESLIZANTE



**NIEBLA BATUR ANTI 5X5**
31 x 31 cm. | 13,15" x 13,15"
BATU50AY **B8** NIEBLA ANTIDESLIZANTE

TOGAMA
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**BLANCO** WHITE ***BLANC***

PROJECT
**RESIDENTIAL POOL**

BLANCO







PROJECT
**RESIDENTIAL POOL**

NIEBLA BLANCO







PROJECT
**CALDEA KIDS**
ANDORRA

BLANCO SILK











PROJECT
**SHA WELLNESS CLINIC SPA**
ALICANTE, SPAIN

BLANCO





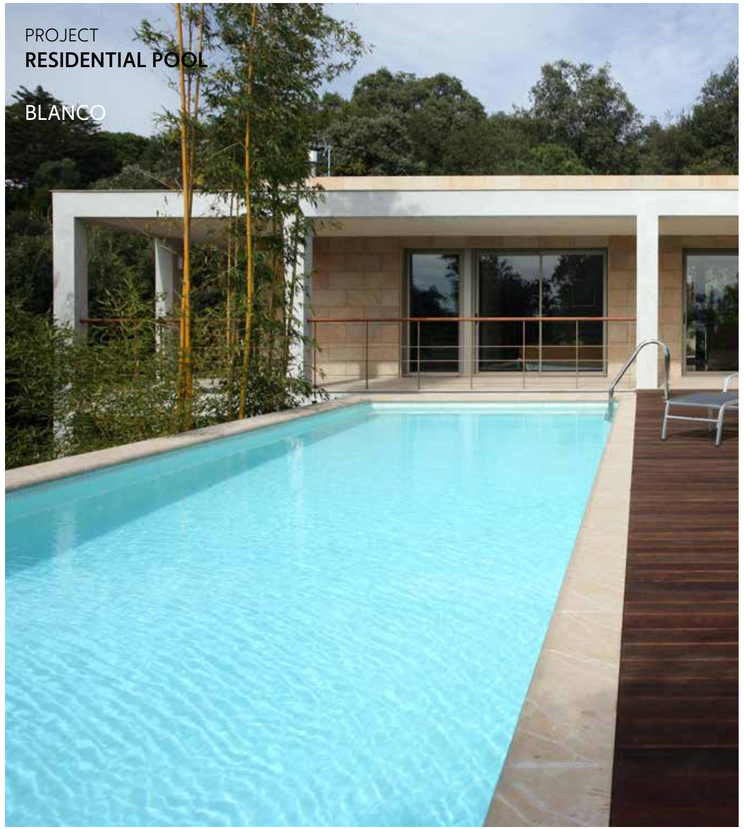


PROJECT
**RESIDENTIAL POOL**

BLANCO GLOSSY
G305










**BLANCO 5x5**
31 x 31 cm. | 13,15" x 13,15"
BNCO50Y **A10** LISO



**BLANCO 5x5 SILK**
31 x 31 cm. | 13,15" x 13,15"
BNCO50AY **B8** LISO ANTIDESLIZANTE



**BLANCO**
33,4 x 33,4 cm. | 13,15" x 13,15"
BNCO25Y **A4** LISO



**BLANCO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
BNCO25AY **B1** LISO ANTIDESLIZANTE



**NIEBLA BLANCO**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIBL25Y **A3** NIEBLA

BLANCOS

WHITE

BLANC

FORMATO · SIZE · FORMAT **2,5 x 2,5 cm.**



**G305**
33,4 x 33,4 cm. | 13,15" x 13,15"
G30525Y2 **C1** GLOSSY

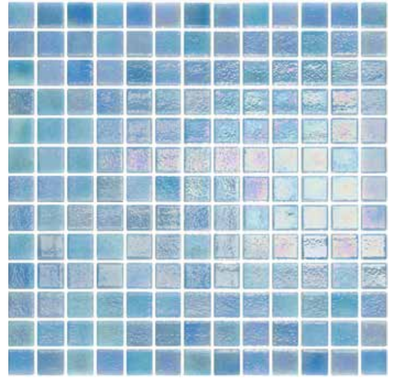


**G328**
33,4 x 33,4 cm. | 13,15" x 13,15"
G32825Y2 **C1** NIEBLA GLOSSY

TOGAMA
MORE THAN MOSAIC



**AZUL** BLUE ***BLEU***



PROJECT
**LOS VENEROS**
PUERTO VALLARTA, MEXICO

NIEBLA PISCINA





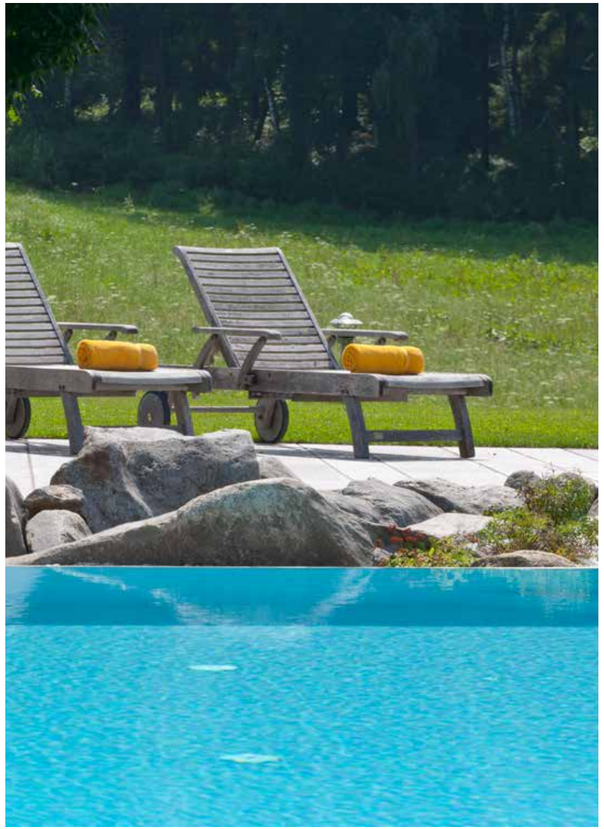


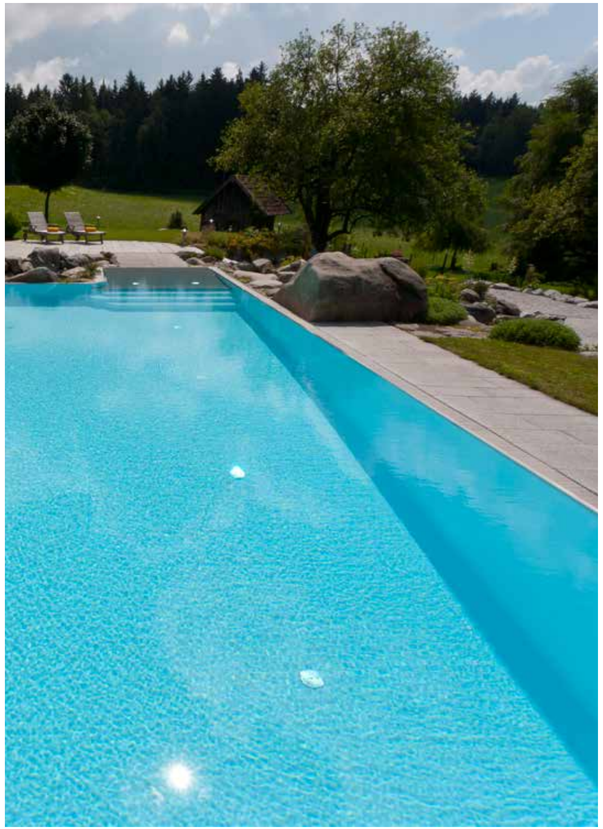




PROJECT
**RESIDENTIAL POOL**

NIEBLA PISCINA





PROJECT
**RESIDENTIAL POOL**
COLOMBIA
G322



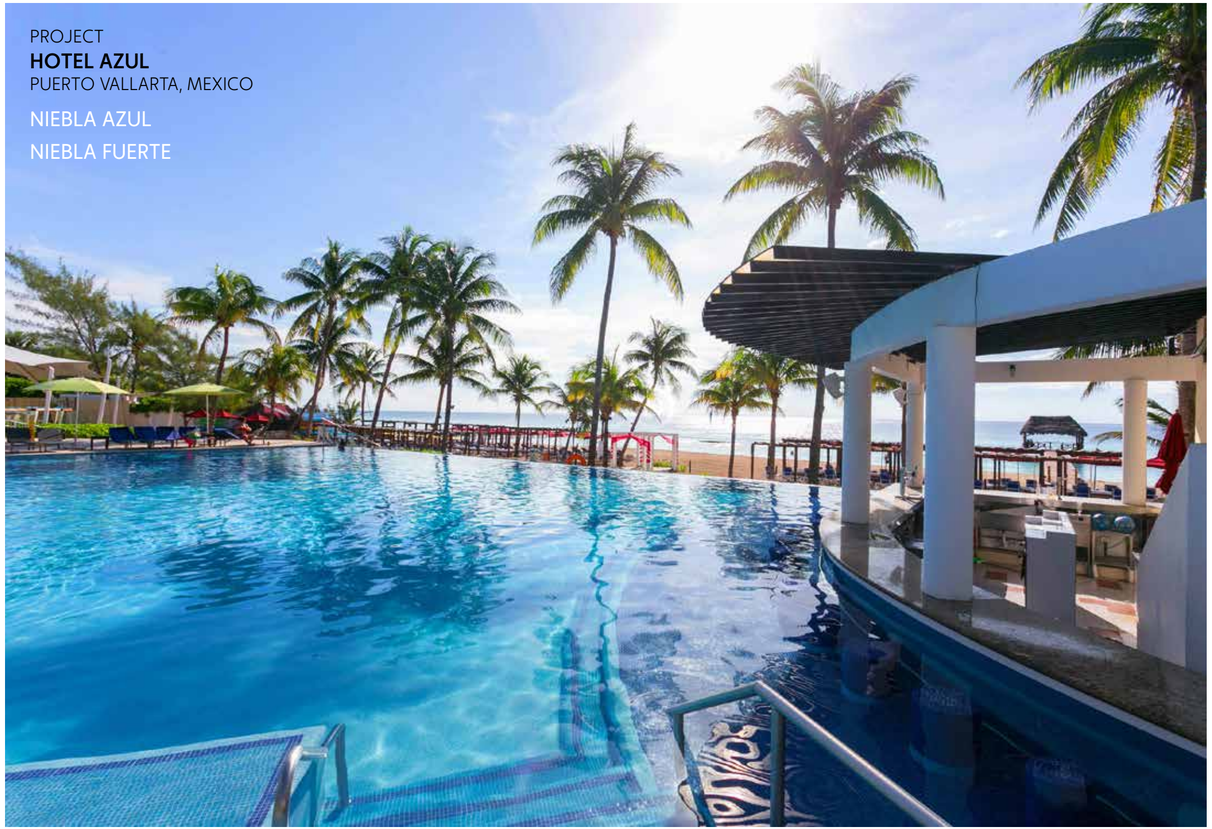
PROJECT

**HOTEL AZUL**

PUERTO VALLARTA, MEXICO

NIEBLA AZUL

NIEBLA FUERTE











PROJECT
**HOTEL PAPANTONIA PROTARAS**
CHIPRE

NIEBLA AZUL
NIEBLA FUERTE









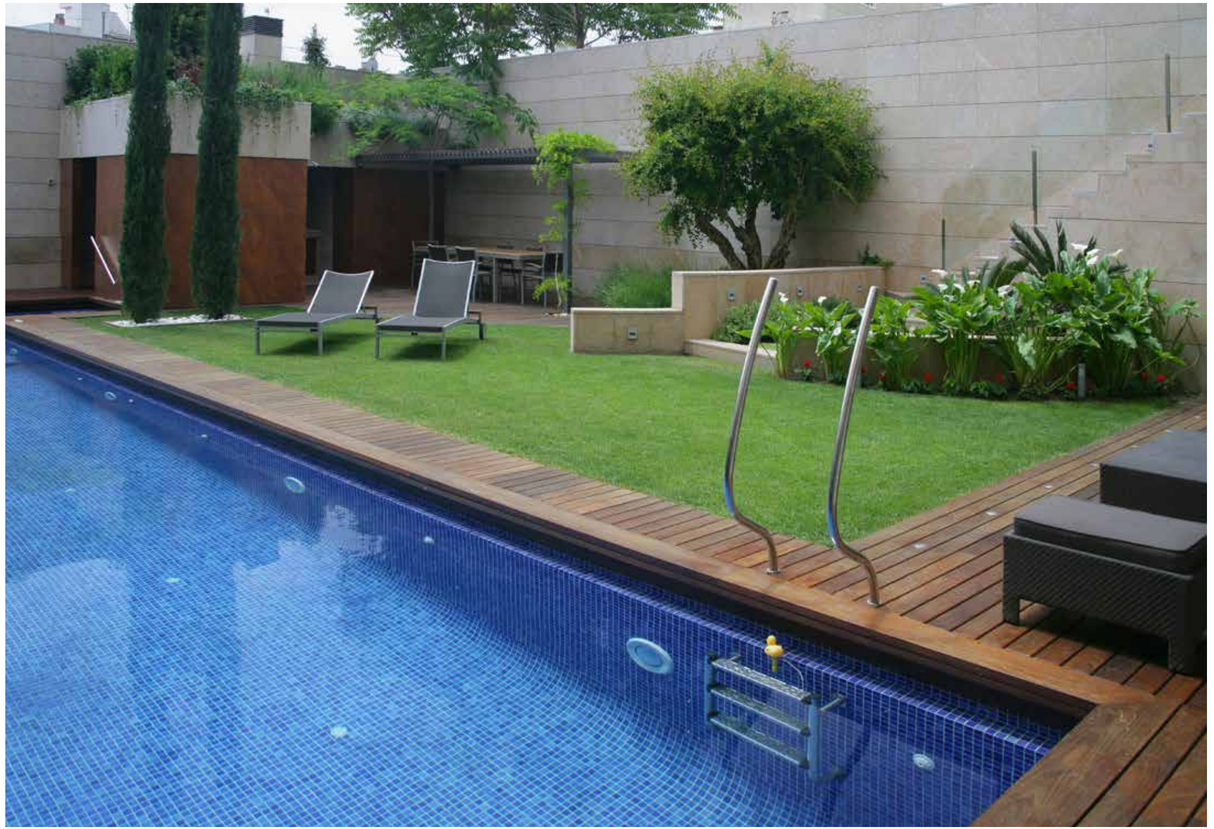
PROJECT
**RESIDENTIAL POOL**

NIEBLA FUERTE 5X5



PROJECT
**RESIDENTIAL POOL**

NIEBLA FUERTE 5X5



PROJECT
**HOTEL & RESORT**
MALDIVE ISLANDS

AZUL FUERTE
NIEBLA FUERTE



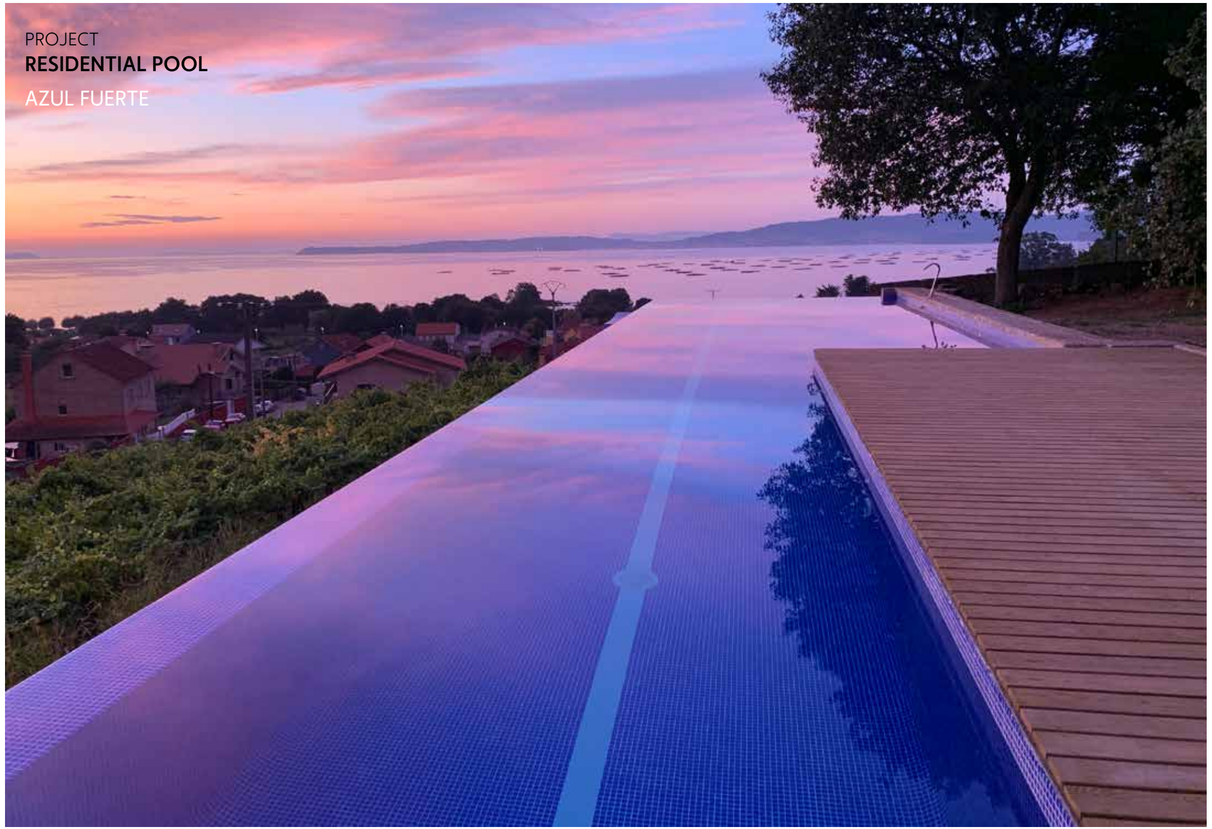


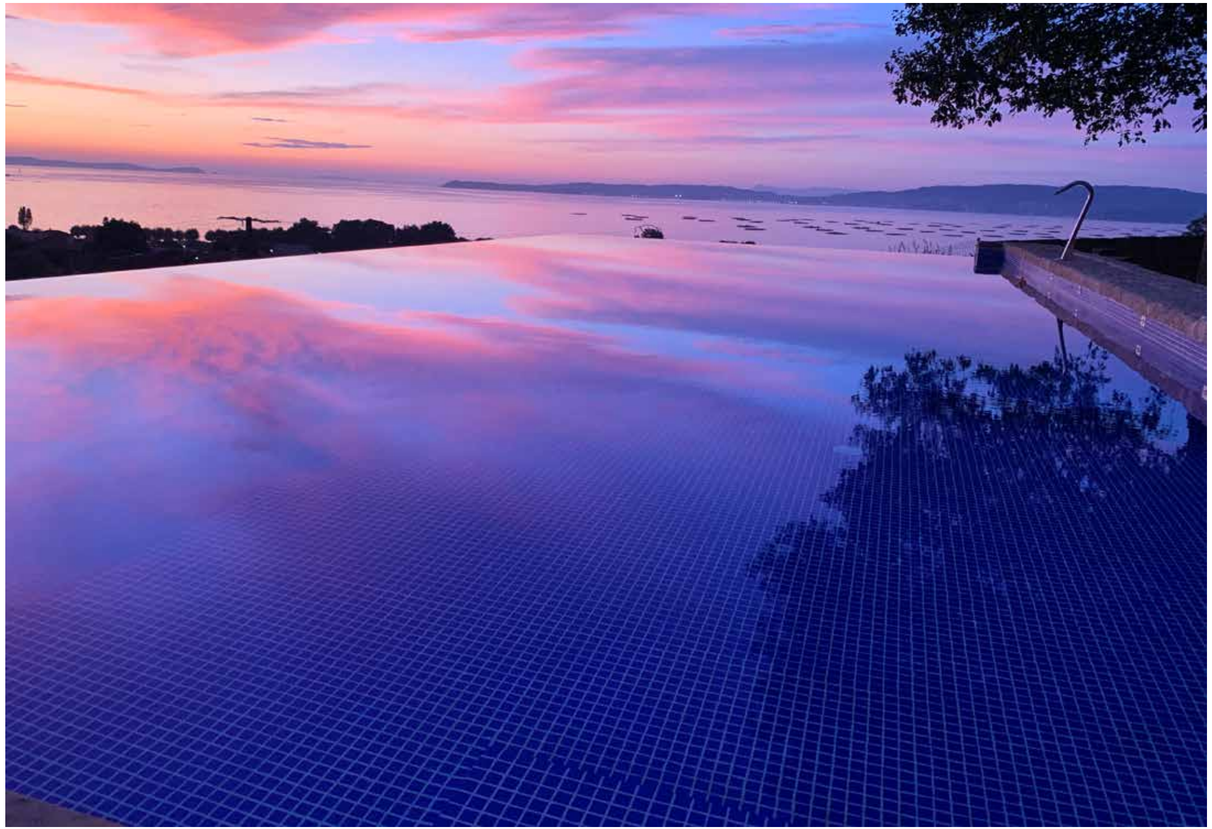






PROJECT
**RESIDENTIAL POOL**
AZUL FUERTE





PROJECT
**RESIDENTIAL POOL**

AZUL COBALTO





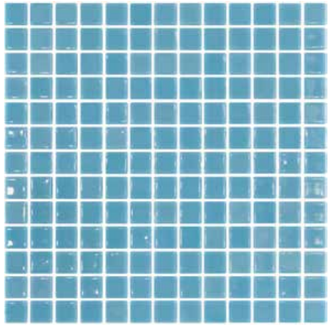




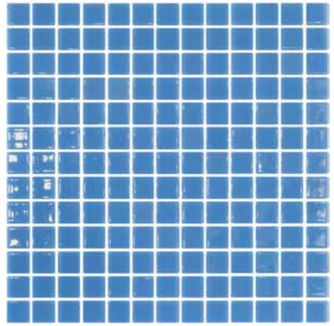




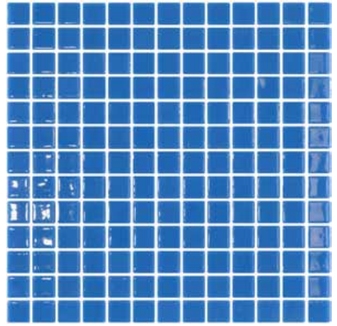
PROJECT
**RESIDENTIAL POOL**
AZUL CLARO SILK



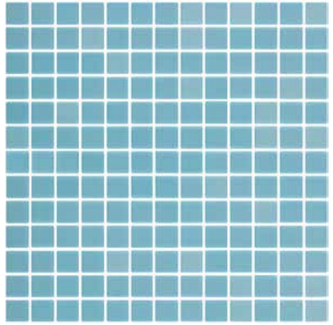
**AZUL PISCINA**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZPI25Y **A4** LISO



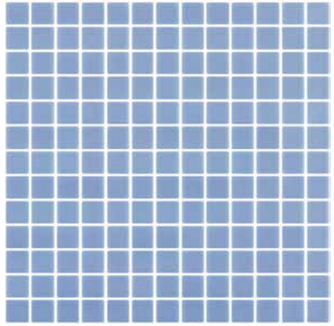
**AZUL CLARO**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZCL25Y **A4** LISO



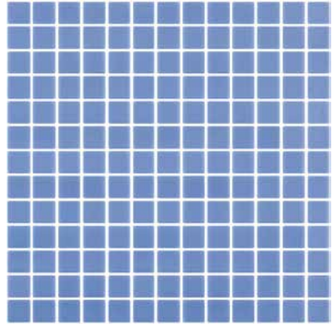
**AZUL MEDIO**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZME25Y **A4** LISO



**AZUL PISCINA SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZPI25AY **B2** LISO ANTIDESLIZANTE

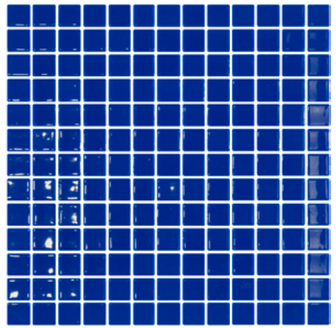


**AZUL CLARO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZCL25AY **B2** LISO ANTIDESLIZANTE

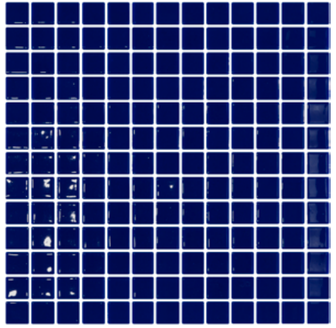


**AZUL MEDIO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZME25AY **B2** LISO ANTIDESLIZANTE

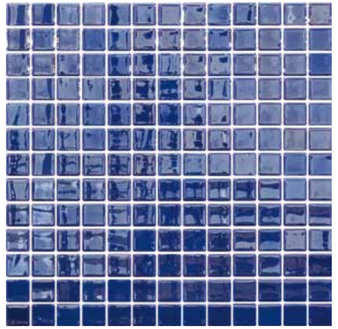


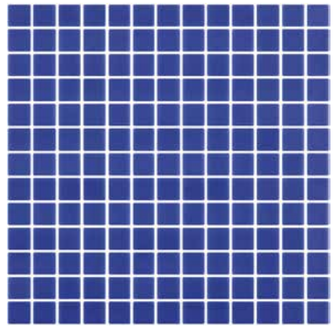
**AZUL FUERTE**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZFU25Y **A5** LISO



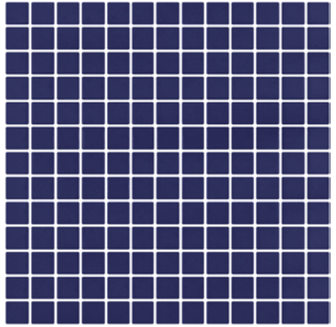
**AZUL COBALTO**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZCO25Y **A6** LISO



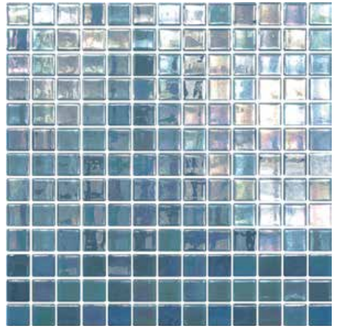
**G308**
33,4 x 33,4 cm. | 13,15" x 13,15"
G30825Y2 **C3** GLOSSY



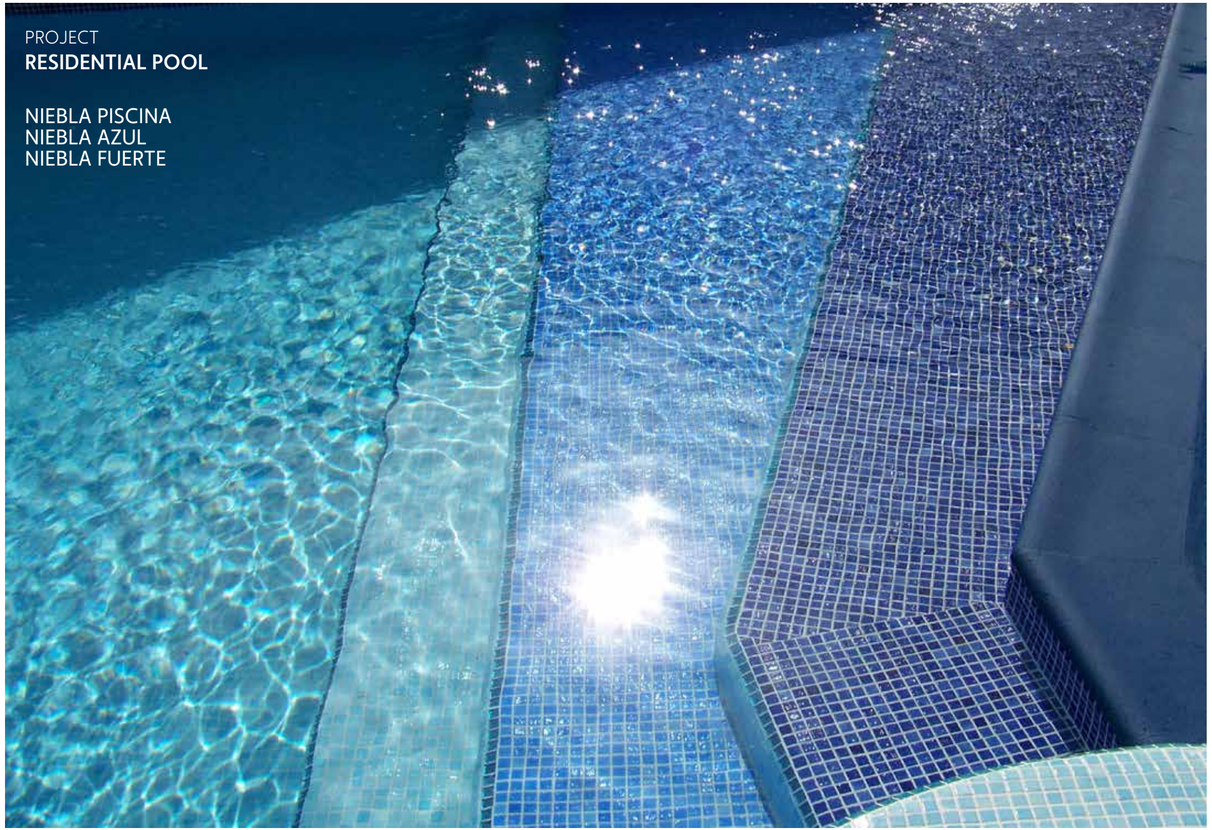
**AZUL FUERTE SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZFU25AY **B3** LISO ANTIDESLIZANTE

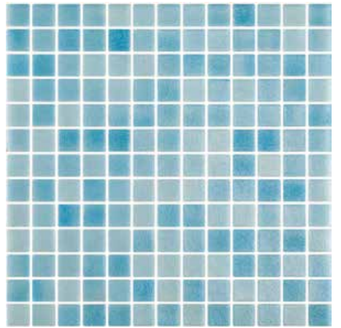


**AZUL COBALTO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZCO25AY **B4** LISO ANTIDESLIZANTE

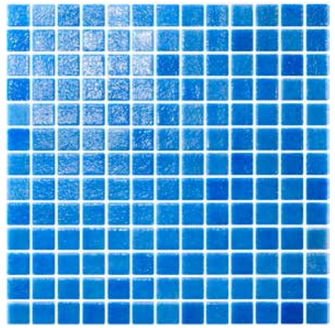


**G306**
33,4 x 33,4 cm. | 13,15" x 13,15"
G30625Y2 **C1** GLOSSY

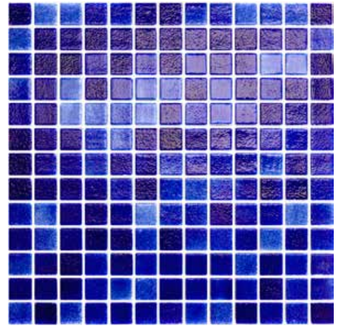


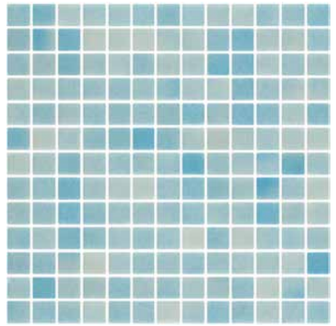
**NIEBLA PISCINA**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIPI25Y **A3** NIEBLA



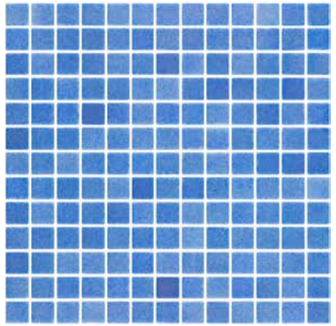
**NIEBLA AZUL**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIAZ25Y **A3** NIEBLA



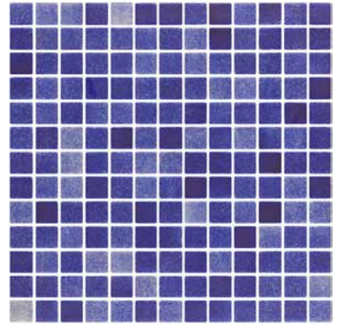
**NIEBLA FUERTE**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIFU25Y **A3** NIEBLA



**NIEBLA PISCINA SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIPI25AY **B1** NIEBLA ANTIDESLIZANTE



**NIEBLA AZUL SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIAZ25AY **B1** NIEBLA ANTIDESLIZANTE

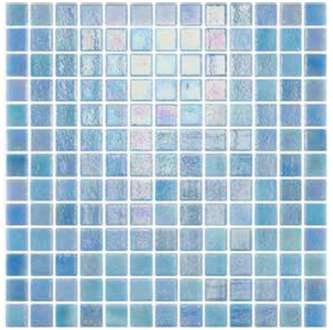


**NIEBLA FUERTE SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIFU25AY **B1** NIEBLA ANTIDESLIZANTE

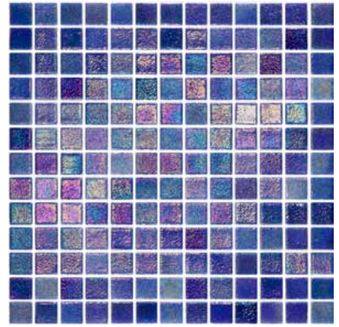




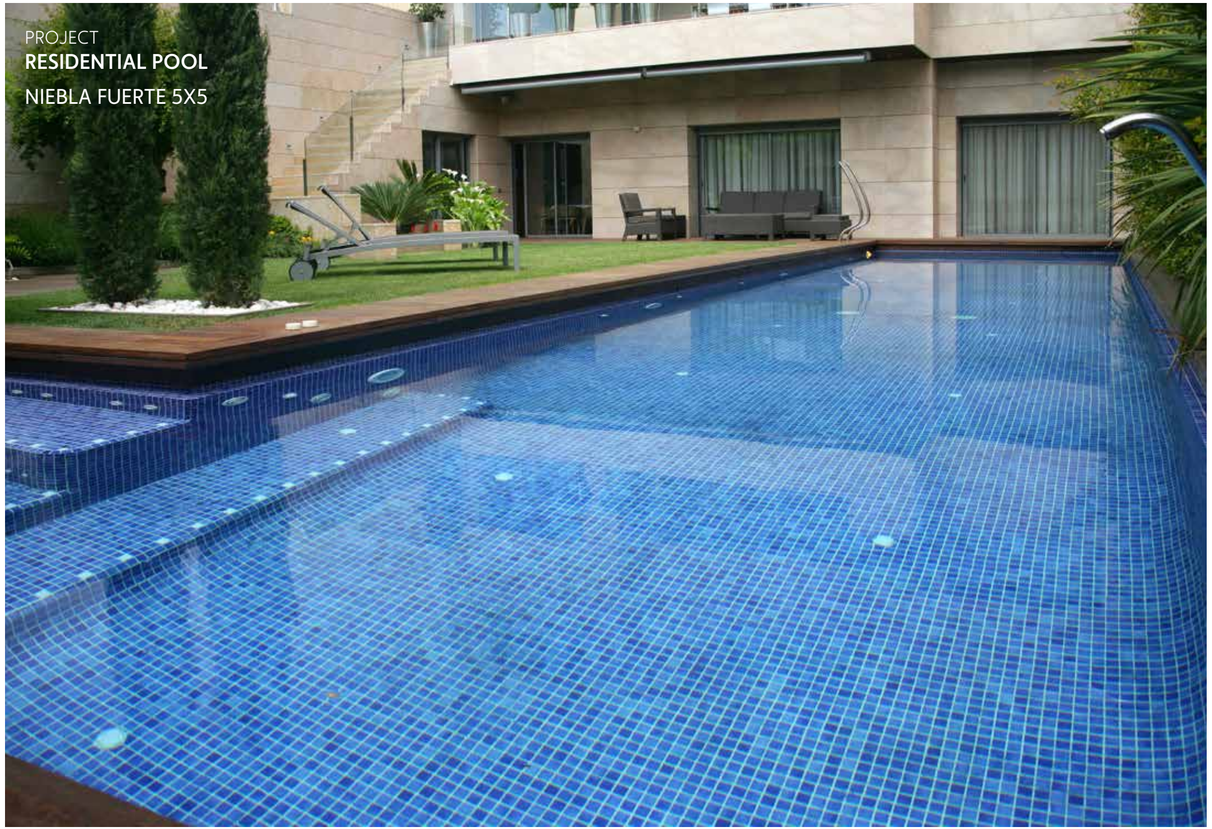




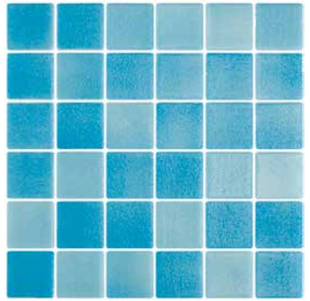
**G322**
33,4 x 33,4 cm. | 13,15" x 13,15"
G32225Y2 **C1** NIEBLA GLOSSY



**G325**
33,4 x 33,4 cm. | 13,15" x 13,15"
G32525Y2 **C1** NIEBLA GLOSSY



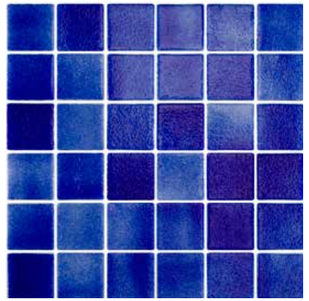
PROJECT
**RESIDENTIAL POOL**
NIEBLA FUERTE 5X5



**NIEBLA PISCINA 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIPI50Y **A10** NIEBLA



**NIEBLA AZUL 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIAZ50Y **A10** NIEBLA



**NIEBLA FUERTE 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIFU50Y **A10** NIEBLA

TOGAMA
MORE THAN MOSAIC



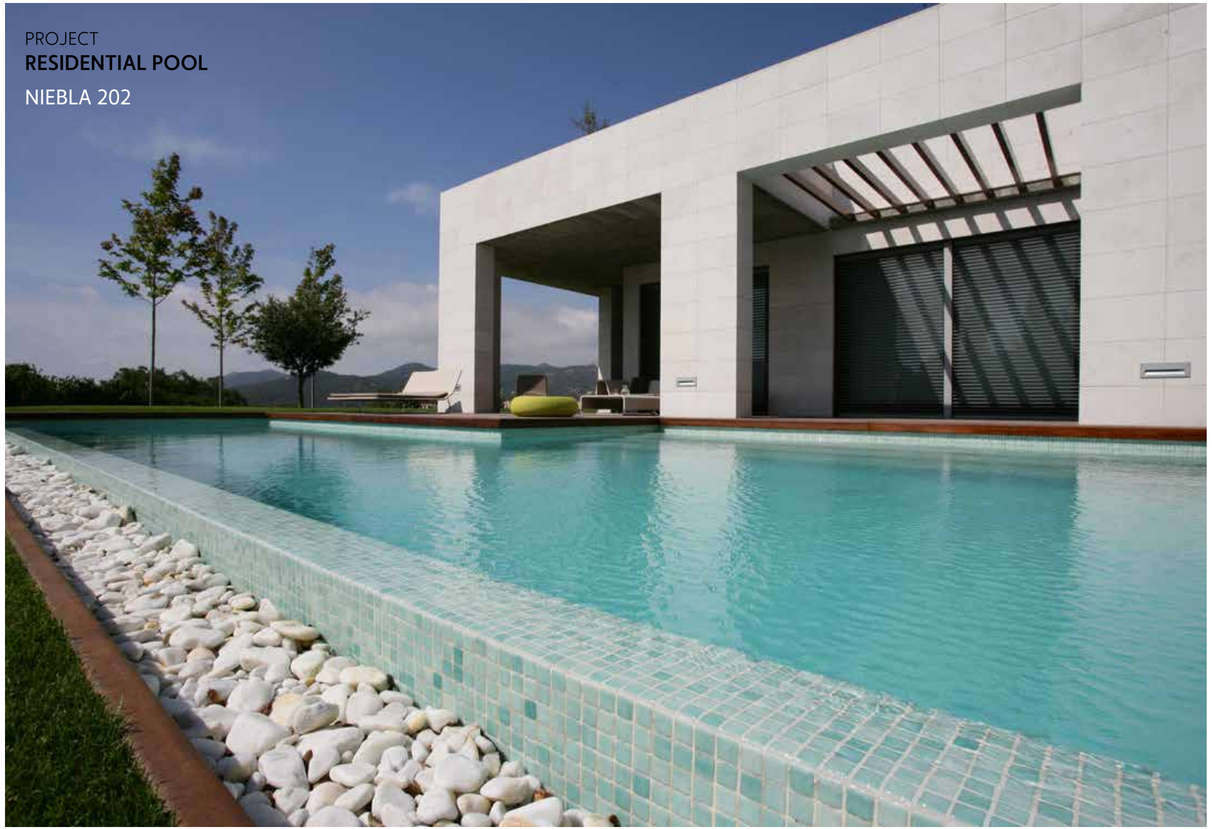
**VERDE** GREEN ***VERT***



PROJECT

**RESIDENTIAL POOL**

NIEBLA 202











PROJECT
**RESIDENTIAL POOL**

NIEBLA 203



PROJECT
**SIRENNIS COUNTRY CLUB**
IBIZA, SPAIN

NIEBLA 203 SILK





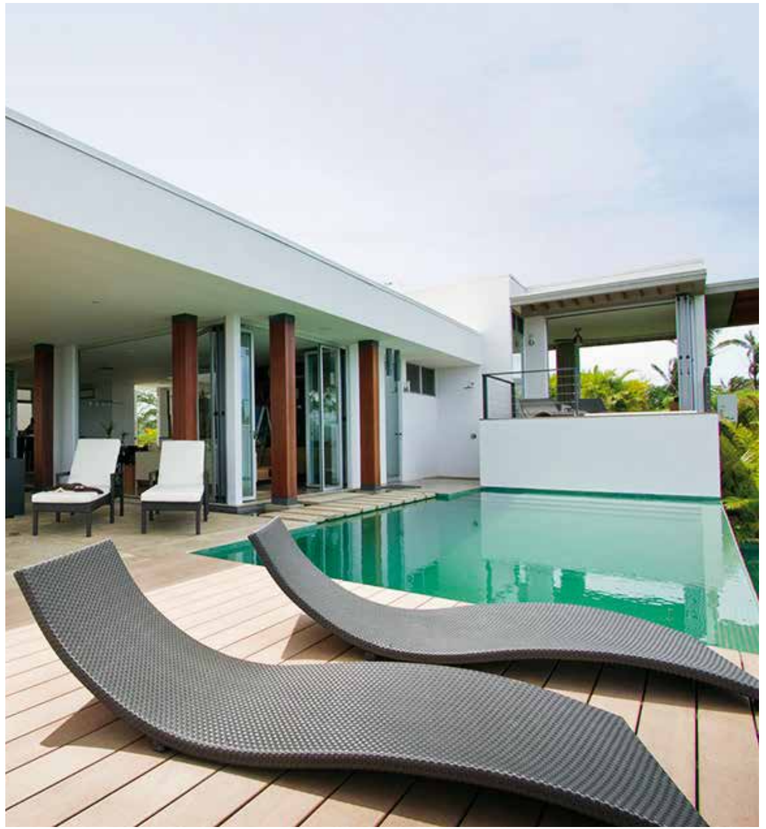


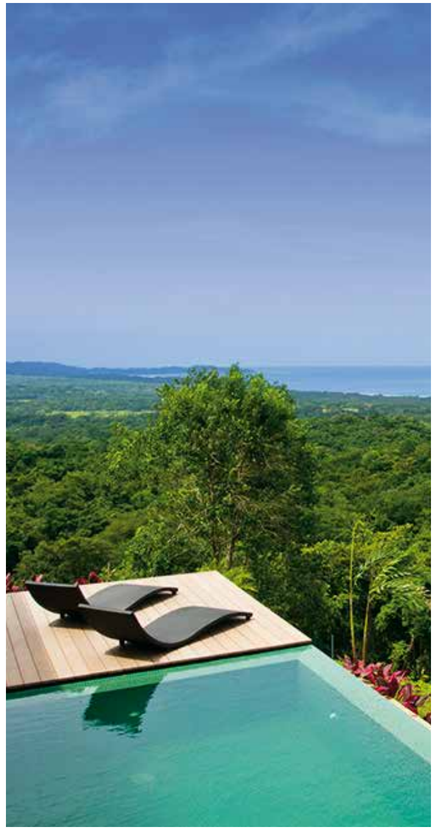




PROJECT
**PRIVATE VILLA**
COSTA RICA

252





PROJECT
**HOTEL THE BEACH STAR**
IBIZA, SPAIN
NIEBLA MENTA







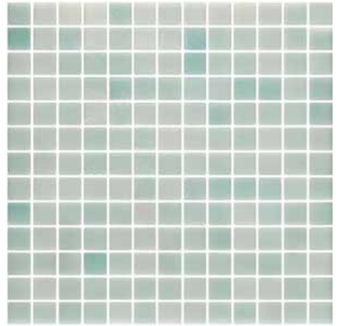
PROJECT
**HOTEL & RESORT STELLA ISLAND**
CRETA
NIEBLA MENTA







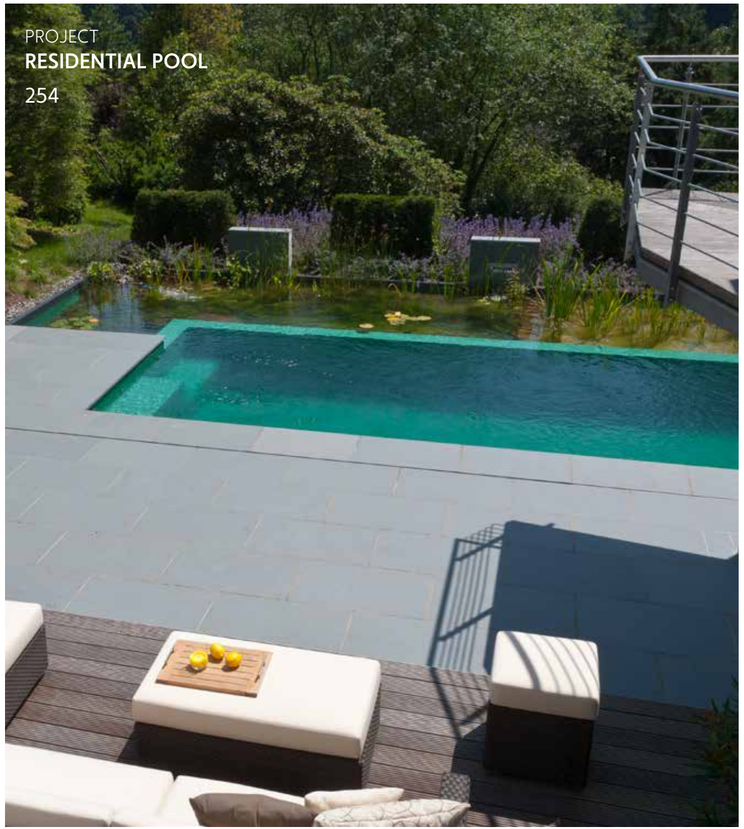


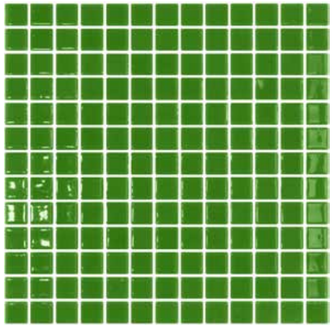


**NIEBLA MENTA**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIME25Y **A3** NIEBLA

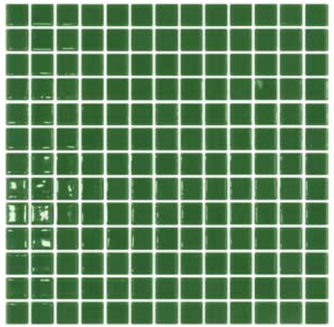


**NIEBLA MENTA SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIME25AY **B1** NIEBLA ANTIDESLIZANTE

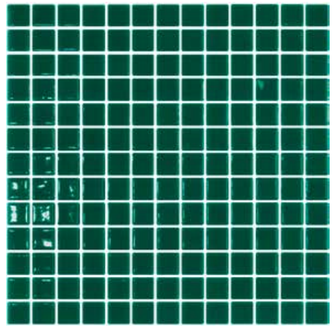


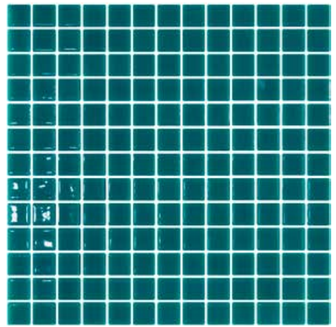
**271**
33,4 x 33,4 cm. | 13,15" x 13,15"
027125Y **A6** LISO



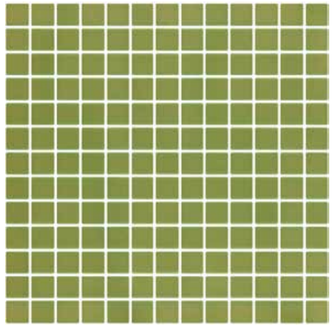
**254**
33,4 x 33,4 cm. | 13,15" x 13,15"
025425Y **A5** LISO



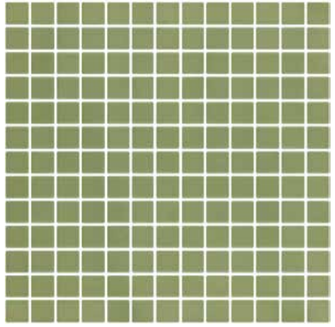
**253**
33,4 x 33,4 cm. | 13,15" x 13,15"
025325Y **A5** LISO



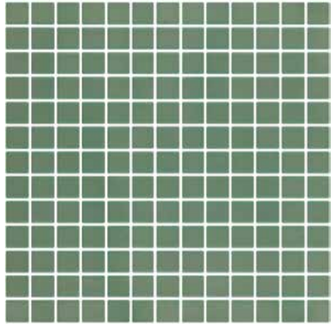
**252**
33,4 x 33,4 cm. | 13,15" x 13,15"
025225Y **A5** LISO



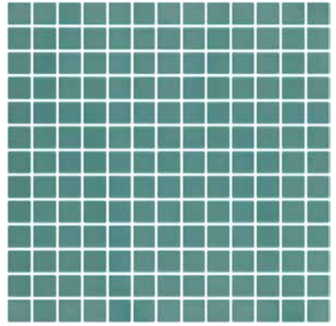
**271 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
027125AY **B4** LISO ANTIDESLIZANTE



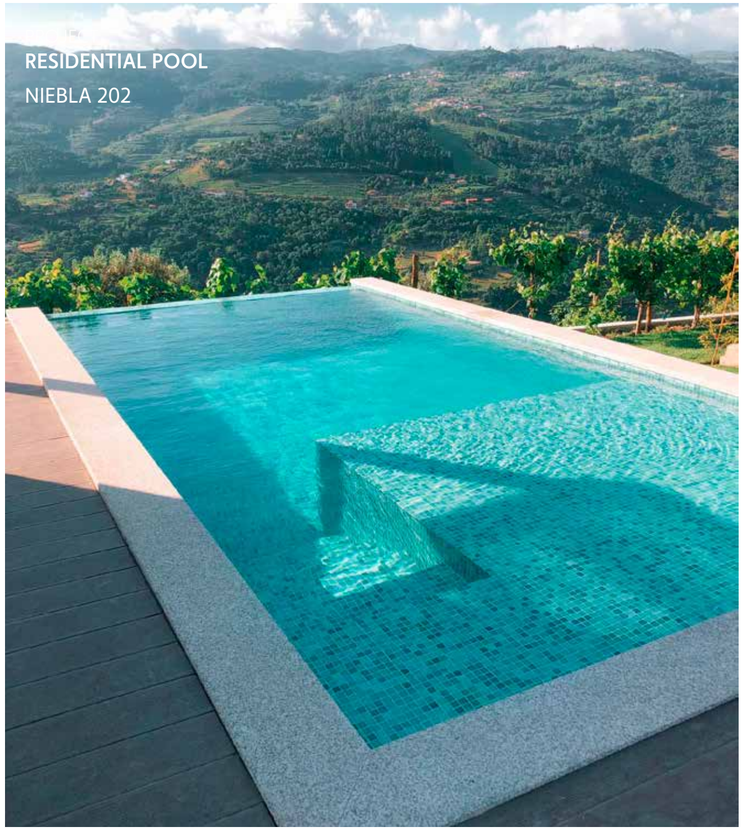
**254 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
025425AY **B3** LISO ANTIDESLIZANTE



**253 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
025325AY **B3** LISO ANTIDESLIZANTE

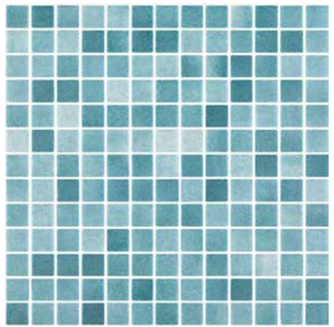


**252 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
025225AY **B3** LISO ANTIDESLIZANTE





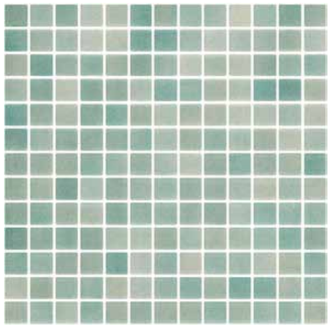

**NIEBLA TIKAL**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIVT25Y **A4** NIEBLA



**NIEBLA TIKAL SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIVT25AY **B2** NIEBLA ANTIDESLIZANTE



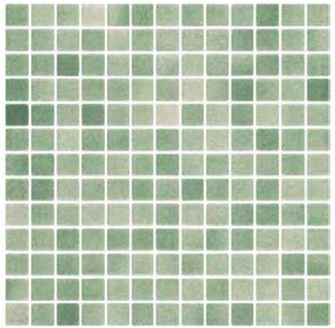
**NIEBLA 202**
33,4 x 33,4 cm. | 13,15" x 13,15"
020225Y **A4** NIEBLA



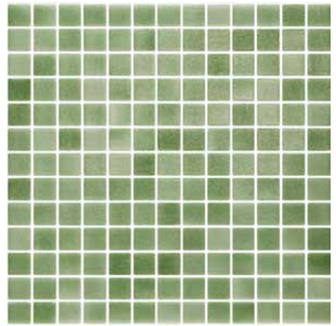
**NIEBLA 202 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
020225AY **B2** NIEBLA ANTIDESLIZANTE



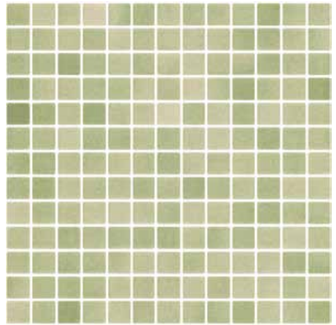
**NIEBLA 203**
33,4 x 33,4 cm. | 13,15" x 13,15"
020325Y **A4** NIEBLA



**NIEBLA 203 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
020325AY **B2** NIEBLA ANTIDESLIZANTE



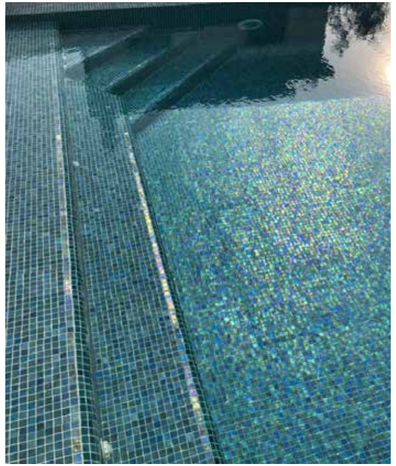
**NIEBLA 204**
33,4 x 33,4 cm. | 13,15" x 13,15"
020425Y **A4** NIEBLA

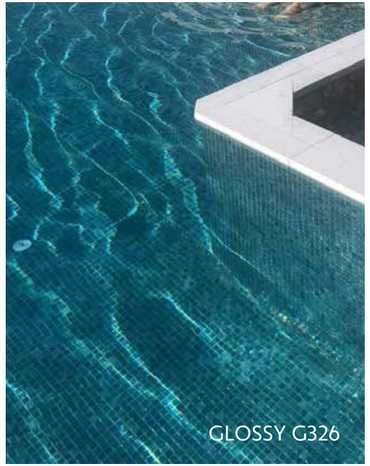


**NIEBLA 204 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
020425AY **B2** NIEBLA ANTIDESLIZANTE



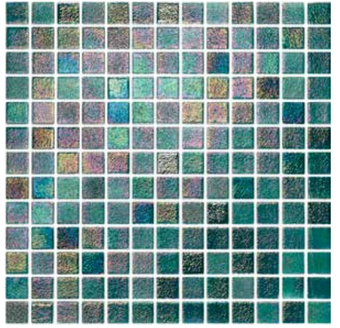







**G320**
33,4 x 33,4 cm. | 13,15" x 13,15"
G32025Y2 **C1** GLOSSY



**G326**
33,4 x 33,4 cm. | 13,15" x 13,15"
G32625Y2 **C1** NIEBLA GLOSSY

PROJECT
**RESIDENTIAL POOL**
NIEBLA 503 5X5





NIEBLA MENTA 5X5



**NIEBLA MENTA 5x5**
31 x 31 cm. | 13,15" x 13,15"
NIME50Y **A10** NIEBLA

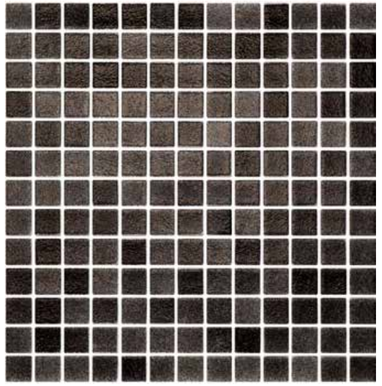


**NIEBLA 503 5x5**
31 x 31 cm. | 13,15" x 13,15"
050350Y **A11** NIEBLA

TOGAMA
MORE THAN MOSAIC

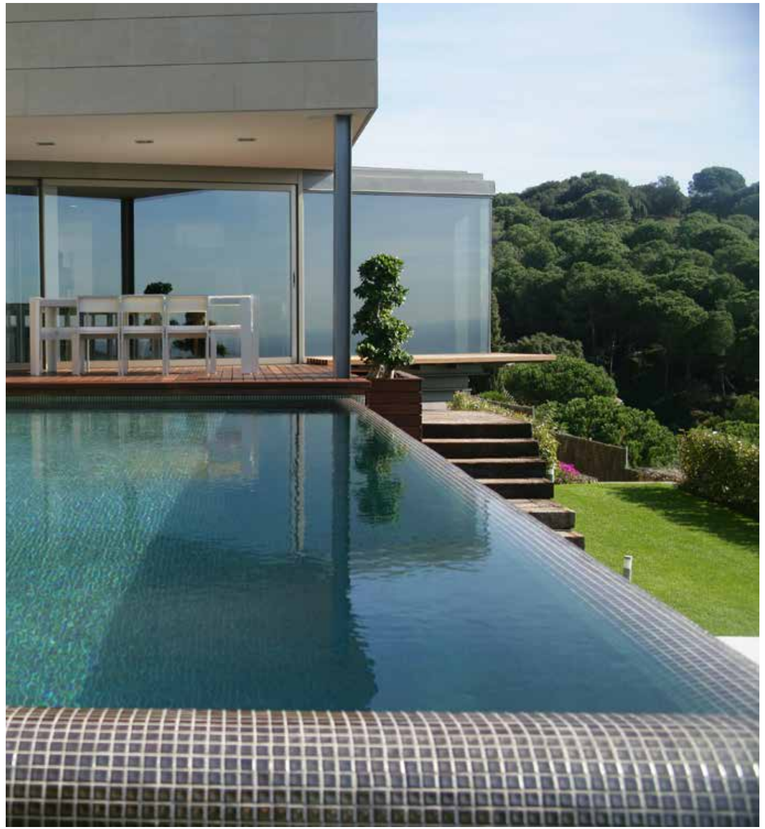


**NEGRO** BLACK ***NOIR***



PROJECT
**RESIDENTIAL POOL**
GLOSSY G311

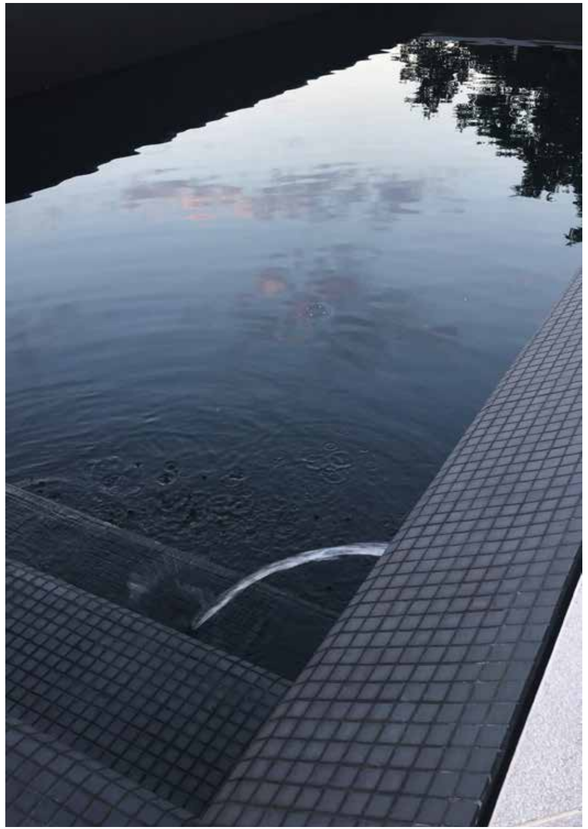




PROJECT
**COLLI BERICI**
VICENZA, ITALIA

NEGRO SILK









PROJECT

**PRIVATE VILLAS**
CÔTE D'AZUR, FRANCE

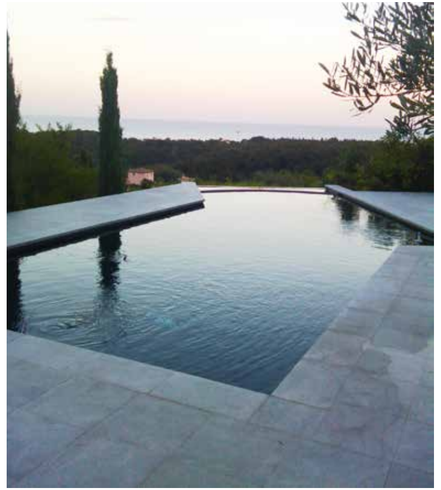
NIEBLA NEGRO

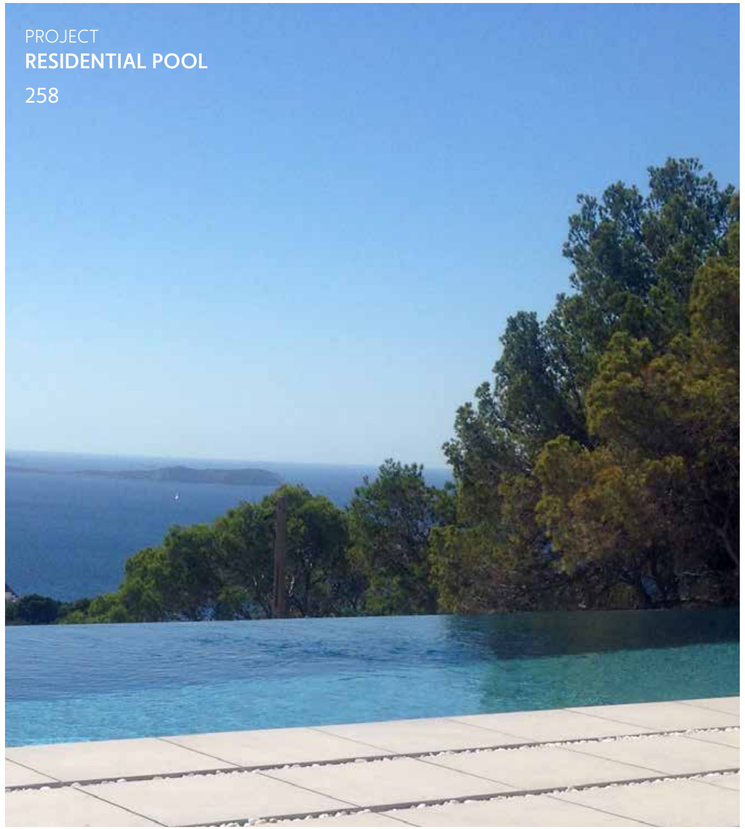


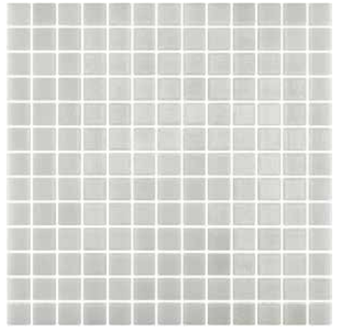










**NIEBLA GRIS**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIGR25Y **A4** NIEBLA

NEGRO

BLACK

NOIR

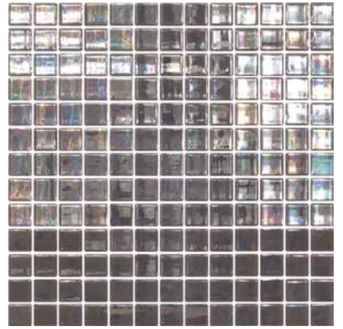
FORMATO · SIZE · FORMAT **2,5 x 2,5 cm.**



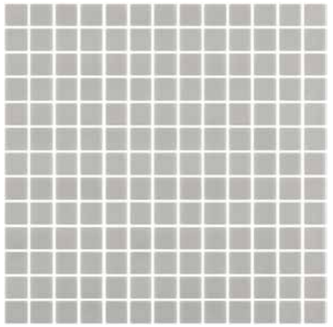
**GRIS CLARO**
33,4 x 33,4 cm. | 13,15" x 13,15"
GRCL25Y **A5** LISO



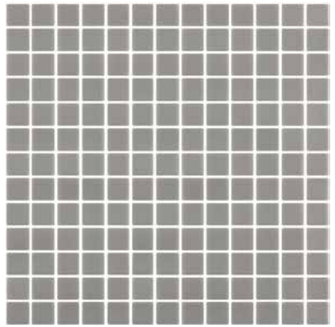
**258**
33,4 x 33,4 cm. | 13,15" x 13,15"
025825Y **A5** LISO



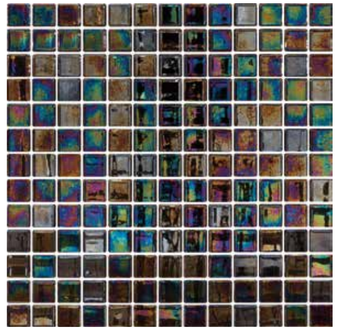
**G311**
33,4 x 33,4 cm. | 13,15" x 13,15"
G31125Y2 **C3** GLOSSY



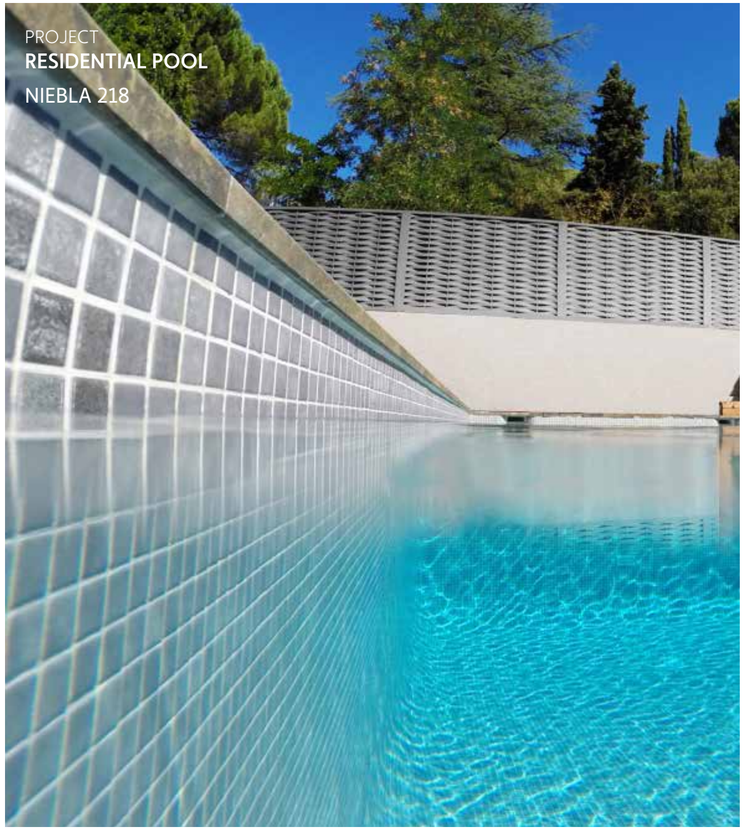
**GRIS CLARO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
GRCL25AY **B3** LISO ANTIDESLIZANTE

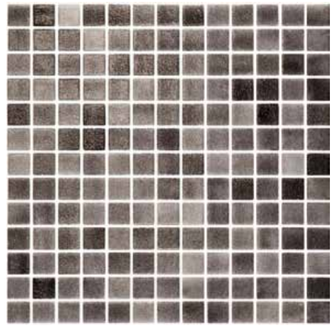


**258 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
025825AY **B3** LISO ANTIDESLIZANTE



**G312**
33,4 x 33,4 cm. | 13,15" x 13,15"
G31225Y2 **C3** GLOSSY



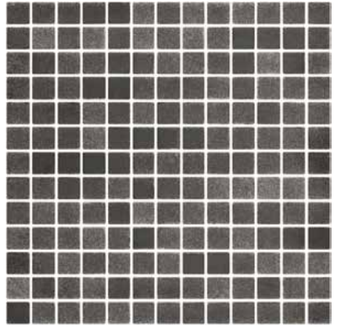
**NIEBLA 218**
33,4 x 33,4 cm. | 13,15" x 13,15"
021825Y **A4** NIEBLA



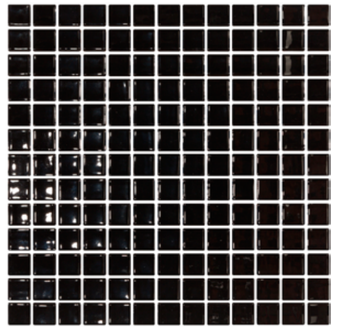
**NIEBLA 218 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
021825AY **B2** NIEBLA ANTIDESLIZANTE



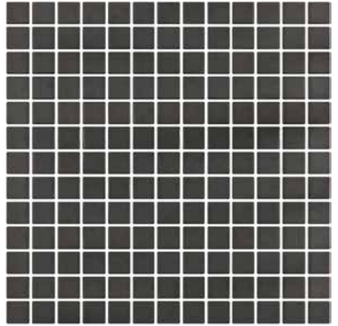
**NIEBLA NEGRO**
33,4 x 33,4 cm. | 13,15" x 13,15"
NINE25Y **A4** NIEBLA



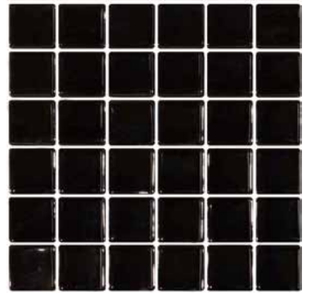
**NIEBLA NEGRO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NINE25AY **B2** NIEBLA ANTIDESLIZANTE



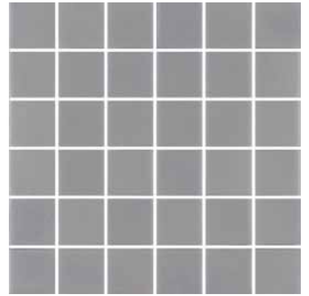
**NEGRO**
33,4 x 33,4 cm. | 13,15" x 13,15"
NEGR25Y **A6** LISO



**NEGRO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NEGR25AY **B4** LISO ANTIDESLIZANTE



**NEGRO 5X5**
31 x 31 cm. | 13,15" x 13,15"
NEGR50Y **A11** LISO

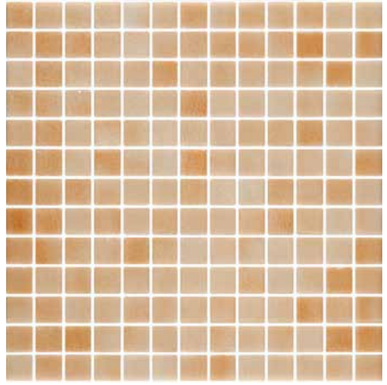


**558 SILK**
31 x 31 cm. | 13,15" x 13,15"
055850AY **B8** ANTIDESLIZANTE

TOGAMA
MORE THAN MOSAIC

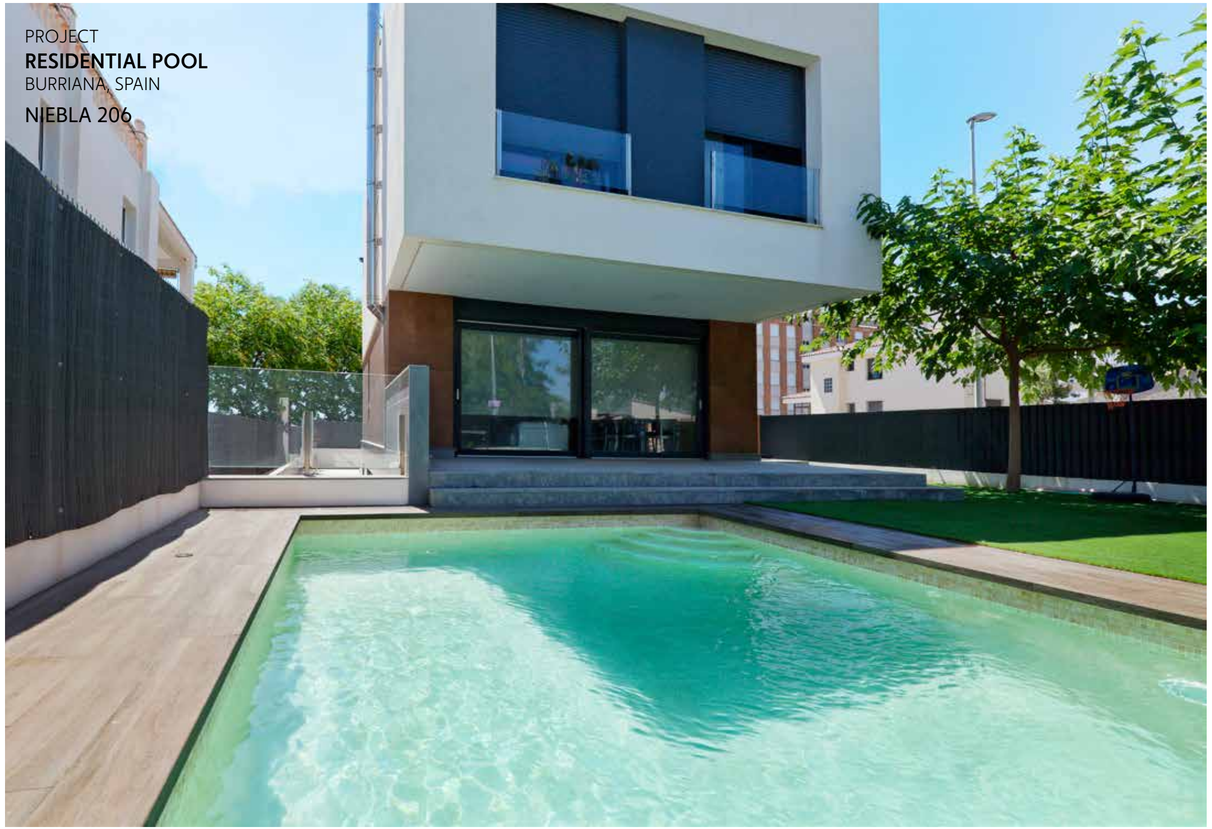


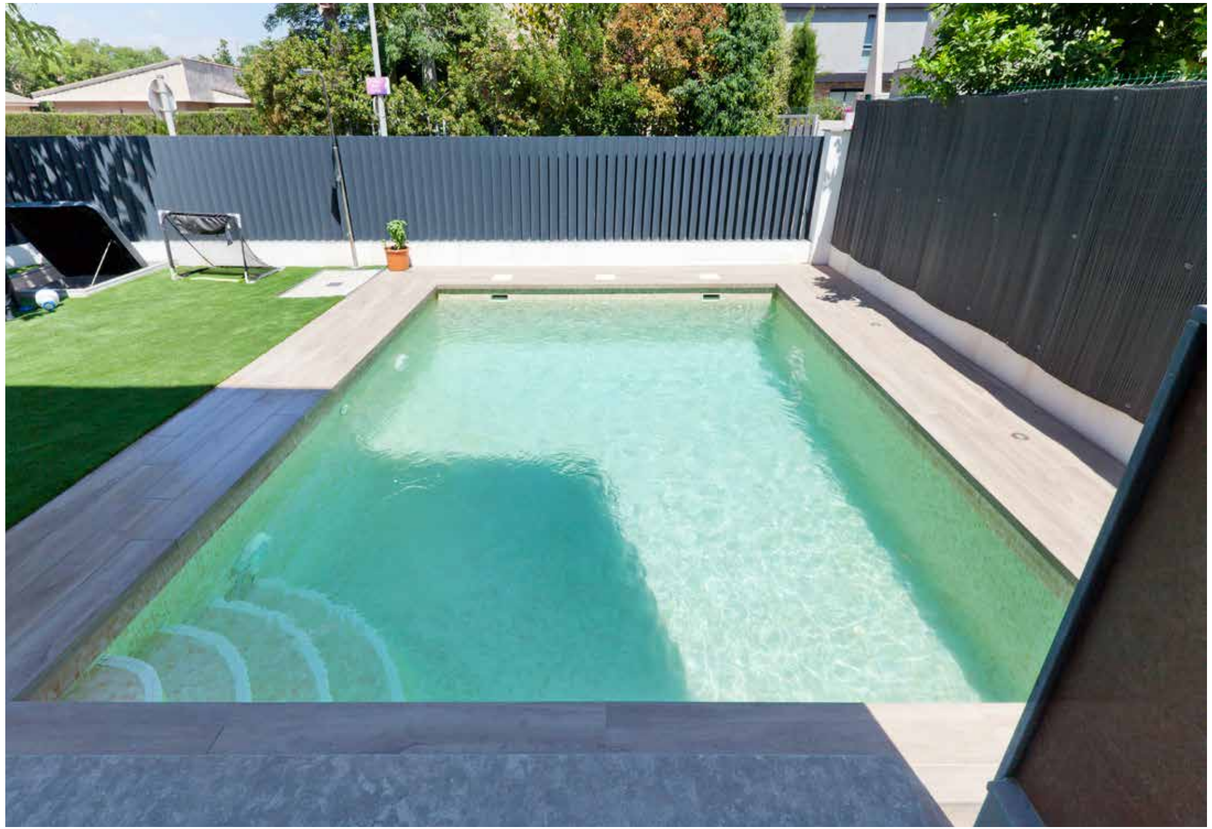
**MARRÓN** BROWN ***MARRON***



PROJECT
**RESIDENTIAL POOL**
BURRIANA, SPAIN

NIEBLA 206





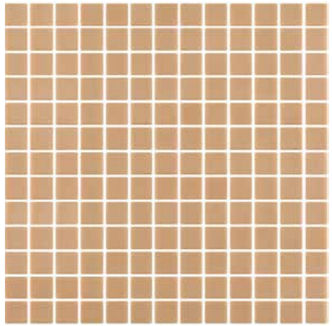
PROJECT

**RESIDENTIAL POOL**

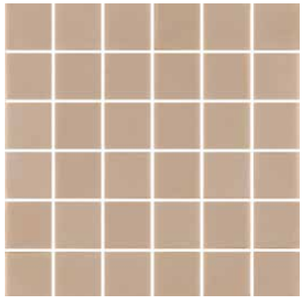
NIEBLA 205



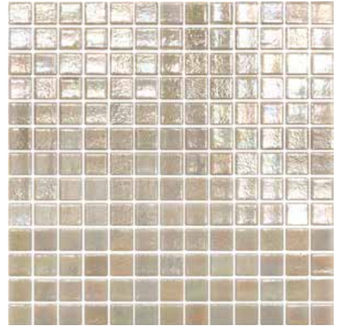


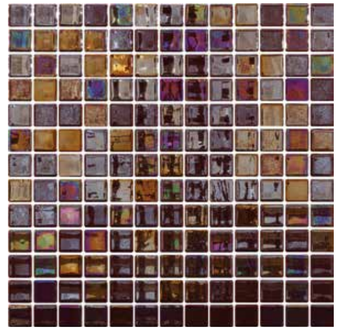
**ARENA SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
AREN25AY **B3** LISO ANTIDESLIZANTE



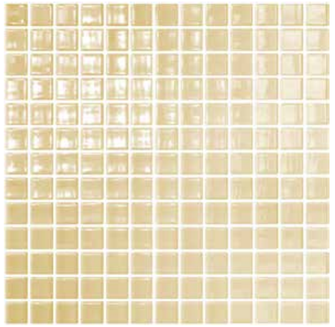
**ARENA 5x5 SILK**
31 x 31 cm. | 13,15" x 13,15"
AREN50AY **B8** LISO ANTIDESLIZANTE



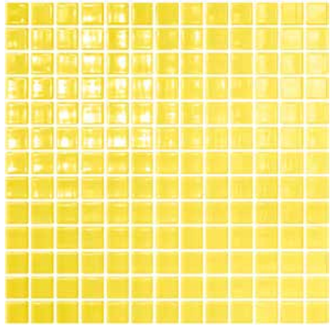
**G321**
33,4 x 33,4 cm. | 13,15" x 13,15"
G32125Y2 **C1** NIEBLA GLOSSY



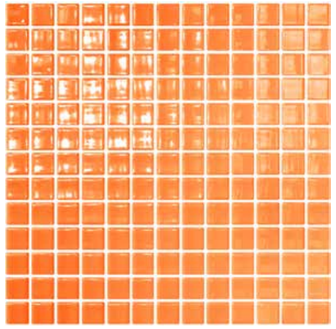
**G304**
33,4 x 33,4 cm. | 13,15" x 13,15"
G30425Y2 **C3** LISO GLOSSY



**CREMA**
33,4 x 33,4 cm. | 13,15" x 13,15"
CREM25Y **A5** LISO



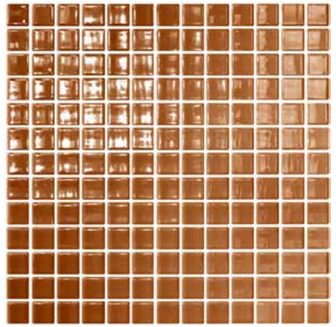
**AMARILLO**
33,4 x 33,4 cm. | 13,15" x 13,15"
AMAR25Y **A8** LISO



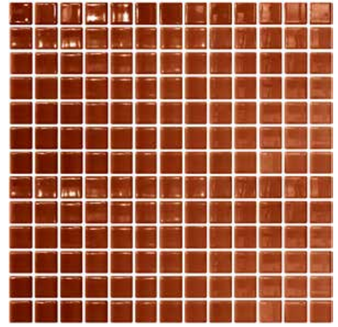
**NARANJA**
33,4 x 33,4 cm. | 13,15" x 13,15"
NARA25Y **A8** LISO



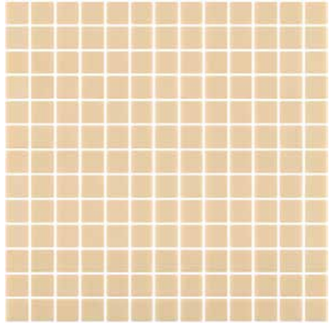
**256**
33,4 x 33,4 cm. | 13,15" x 13,15"
025625Y **A5** LISO



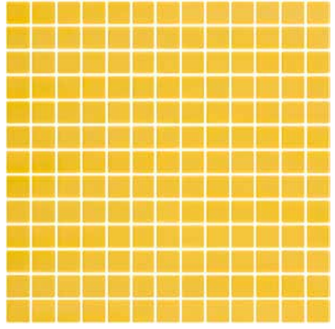
**273**
33,4 x 33,4 cm. | 13,15" x 13,15"
027325Y **A6** LISO



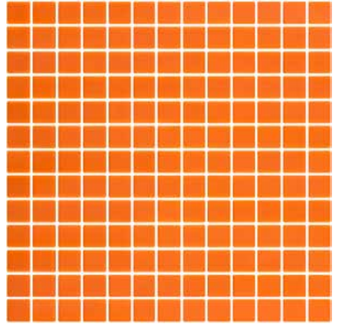
**277**
33,4 x 33,4 cm. | 13,15" x 13,15"
02775Y **A6** LISO



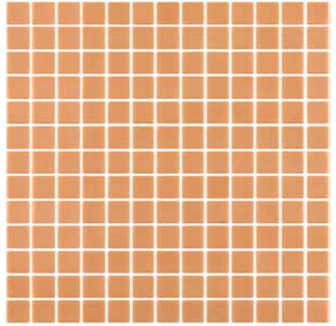
**CREMA SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
CREM25AY **B3** LISO ANTIDESLIZANTE



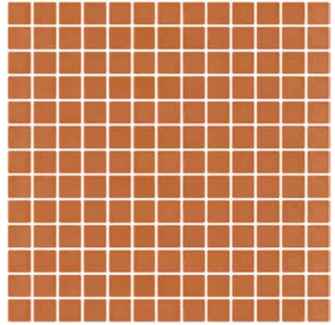
**AMARILLO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
AMAR25AY **B6** LISO ANTIDESLIZANTE



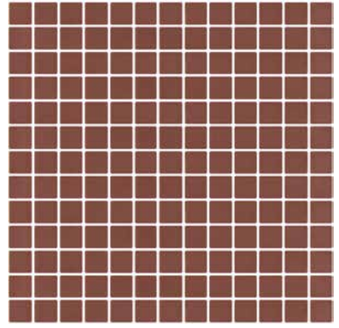
**NARANJA SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NARA25AY **B6** LISO ANTIDESLIZANTE



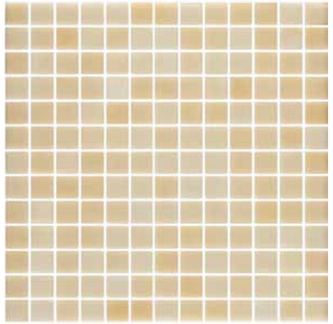
**256 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
025625AY **B3** LISO ANTIDESLIZANTE



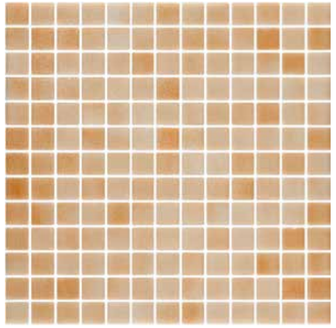
**273 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
027325AY **B4** LISO ANTIDESLIZANTE



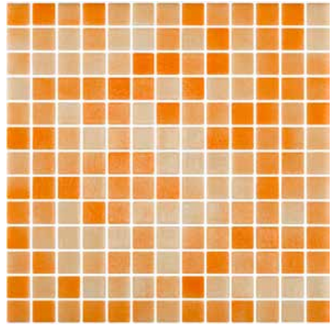
**277 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
027725AY **B4** LISO ANTIDESLIZANTE



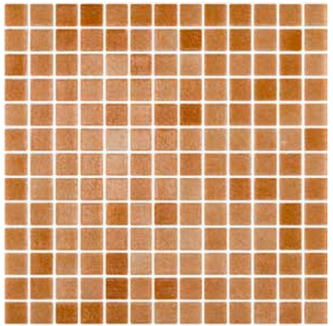
**NIEBLA 214**
33,4 x 33,4 cm. | 13,15" x 13,15"
021425Y **A5** NIEBLA



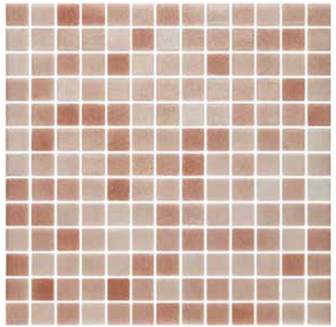
**NIEBLA 206**
33,4 x 33,4 cm. | 13,15" x 13,15"
020625Y **A4** NIEBLA



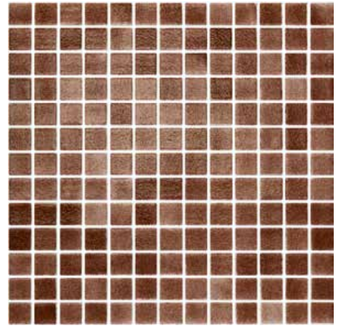
**NIEBLA NARANJA**
33,4 x 33,4 cm. | 13,15" x 13,15"
NINA25Y **A6** NIEBLA



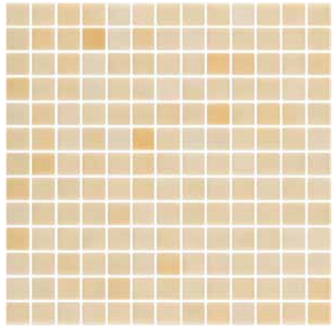
**NIEBLA 213**
33,4 x 33,4 cm. | 13,15" x 13,15"
021325Y **A5** NIEBLA



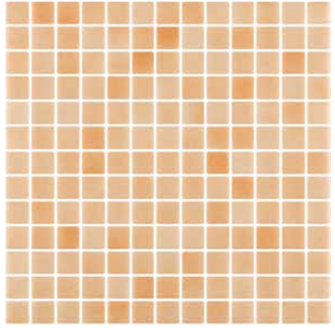
**NIEBLA 205**
33,4 x 33,4 cm. | 13,15" x 13,15"
020525Y **A4** NIEBLA



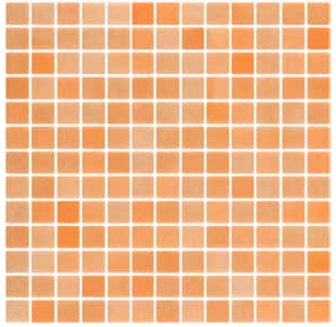
**NIEBLA 217**
33,4 x 33,4 cm. | 13,15" x 13,15"
02175Y **A5** NIEBLA



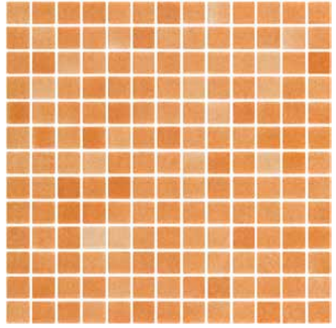
**NIEBLA 214 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
021425AY **B3** NIEBLA ANTIDESLIZANTE



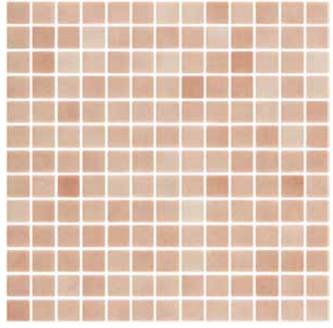
**NIEBLA 206 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
020625AY **B2** NIEBLA ANTIDESLIZANTE



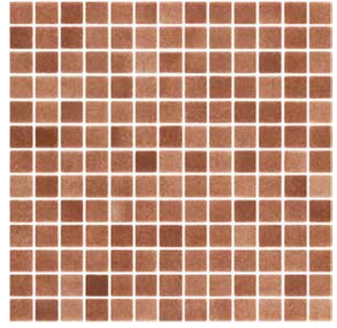
**NIEBLA NARANJA SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NINA25AY **B4** NIEBLA ANTIDESLIZANTE



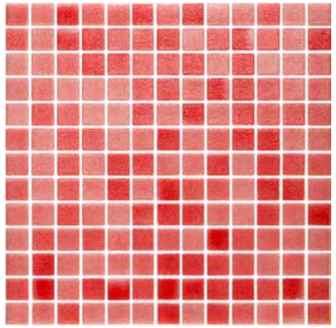
**NIEBLA 213 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
021325AY **B3** NIEBLA ANTIDESLIZANTE



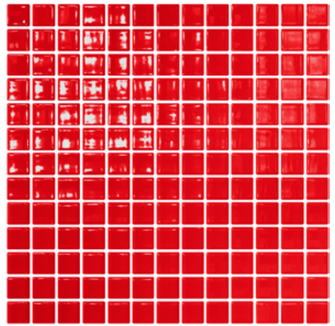
**NIEBLA 205 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
020525AY **B2** NIEBLA ANTIDESLIZANTE



**NIEBLA 217 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
021725AY **B3** NIEBLA ANTIDESLIZANTE



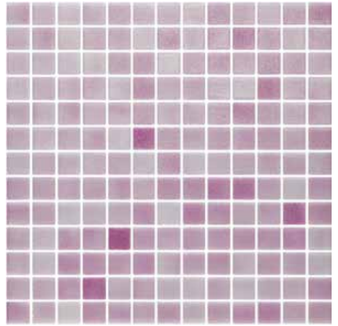
**NIEBLA ROJO**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIRJ25Y **A6** NIEBLA



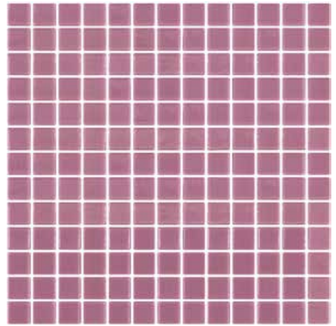
**ROJO**
33,4 x 33,4 cm. | 13,15" x 13,15"
ROJO25Y **A9** LISO



**G303**
33,4 x 33,4 cm. | 13,15" x 13,15"
G30325Y2 **C4** GLOSSY



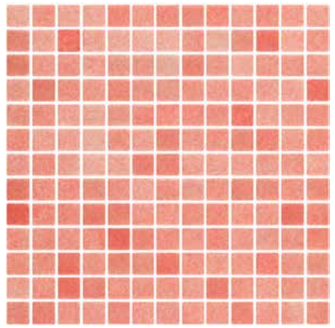
**NIEBLA 210**
33,4 x 33,4 cm. | 13,15" x 13,15"
021025Y **A5** NIEBLA



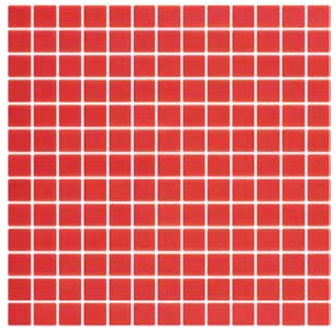
**268**
33,4 x 33,4 cm. | 13,15" x 13,15"
026825Y **A6** LISO



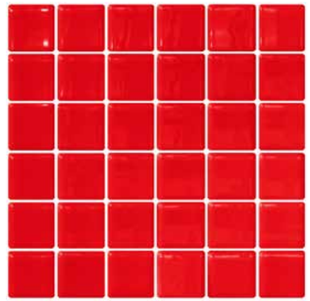
**G310**
33,4 x 33,4 cm. | 13,15" x 13,15"
G31025Y2 **C3** GLOSSY



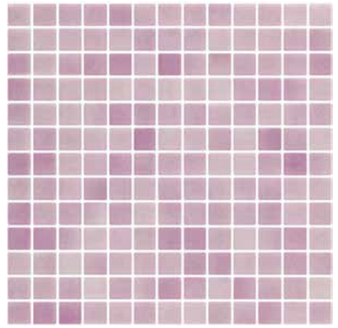
**NIEBLA ROJO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
NIRJ25AY **B4** NIEBLA ANTIDESLIZANTE



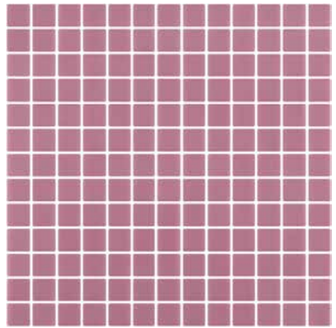
**ROJO SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
ROJO25AY **B7** LISO ANTIDESLIZANTE



**ROJO 5x5**
31 x 31 cm. | 13,15" x 13,15"
ROJO50Y **A12** LISO



**NIEBLA 210 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
021025AY **B3** NIEBLA ANTIDESLIZANTE



**268 SILK**
33,4 x 33,4 cm. | 13,15" x 13,15"
026825AY **B4** LISO ANTIDESLIZANTE

MARRONES

BROWN

MARRON

FORMATO · SIZE · FORMAT **2,5 x 2,5 cm.**

TOGAMA
MORE THAN MOSAIC

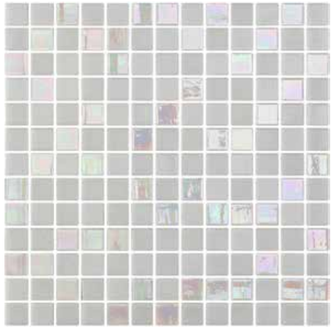


**COMBIS** MIX *MÉLANGES*









33% **G305** / 33% **MT04** / 33% **NIEBLA BLANCO**

**PARIS**
33,4 x 33,4 cm. | 13,15" x 13,15"
PARI25Y **L4**



33% **MA09** / 33% **MT05** / 33% **G312**

**TOKYO**
33,4 x 33,4 cm. | 13,15" x 13,15"
TOKY25Y **L5**





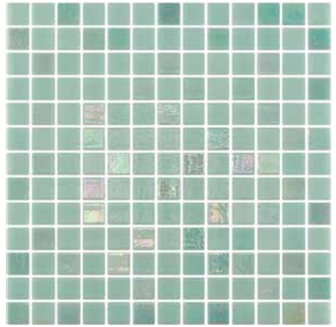






33% **G320** / 33% **G305** / 33% **NIEBLA MENTA**

**BAHAMAS**
33,4 x 33,4 cm. | 13,15" x 13,15"
BAHA25Y **L4**

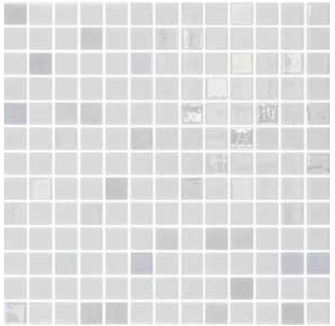


20% **G320** / 80% **NIEBLA MENTA**

**MARTINIQUE**
33,4 x 33,4 cm. | 13,15" x 13,15"
MART25Y **L3**







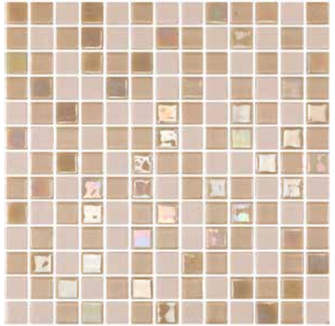
**MONTREAL**
33,4 x 33,4 cm. | 13,15" x 13,15"
MONT25Y **L3**

80% **BLANCO** / 20% **G305**



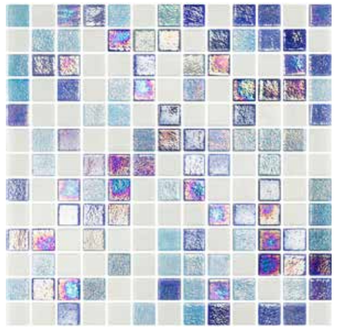
**MILAN**
33,4 x 33,4 cm. | 13,15" x 13,15"
MILA25Y **L5**

33% **MA13** / 33% **MT07** / 33% **G329**



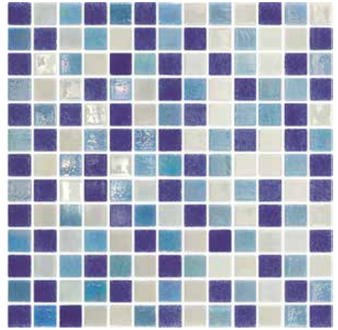
**DURBAN**
33,4 x 33,4 cm. | 13,15" x 13,15"
DURB25Y **L5**

33% **MA14** / 33% **MT08** / 33% **G330**



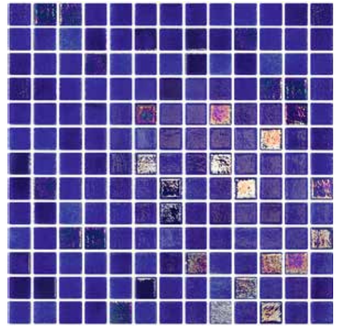
**ARTIC**
33,4 x 33,4 cm. | 13,15" x 13,15"
ARTI25Y **L4**

33% **G325** / 33% **G322** / 33% **NIEBLA BLANCO**



**ADRIATIC**
33,4 x 33,4 cm. | 13,15" x 13,15"
ADRI25Y **L4**

33% **G322** / 33% **G305** / 33% **NIEBLA FUERTE**



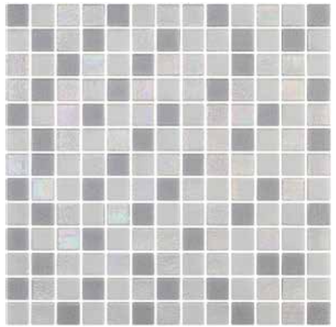
**INDICO**
33,4 x 33,4 cm. | 13,15" x 13,15"
INDI25Y **L3**

20% **G325** / 80% **NIEBLA FUERTE**



**BALI**
33,4 x 33,4 cm. | 13,15" x 13,15"
BALI25Y **L4**

33% **G320** / 33% **MT04** / 33% **G328**



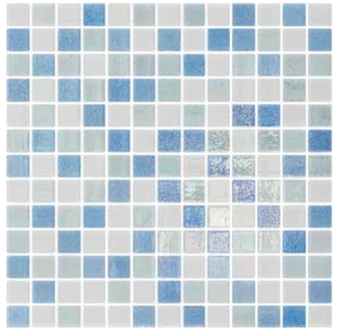
**SYDNEY**
33,4 x 33,4 cm. | 13,15" x 13,15"
SYDN25Y **L4**

33% **NIEBLA BLANCO** / 33% **MT01** / 33% **G328**



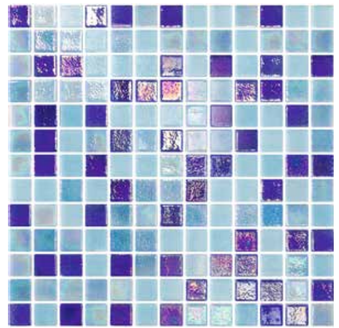
**BOSTON**
33,4 x 33,4 cm. | 13,15" x 13,15"
BOST25Y **L4**

33% **MT01** / 33% **G311** / 33% **BLANCO**



**BALTIC**
33,4 x 33,4 cm. | 13,15" x 13,15"
BALT25Y **L4**

33% **G322** / 33% **G320** / 33% **BLANCO**



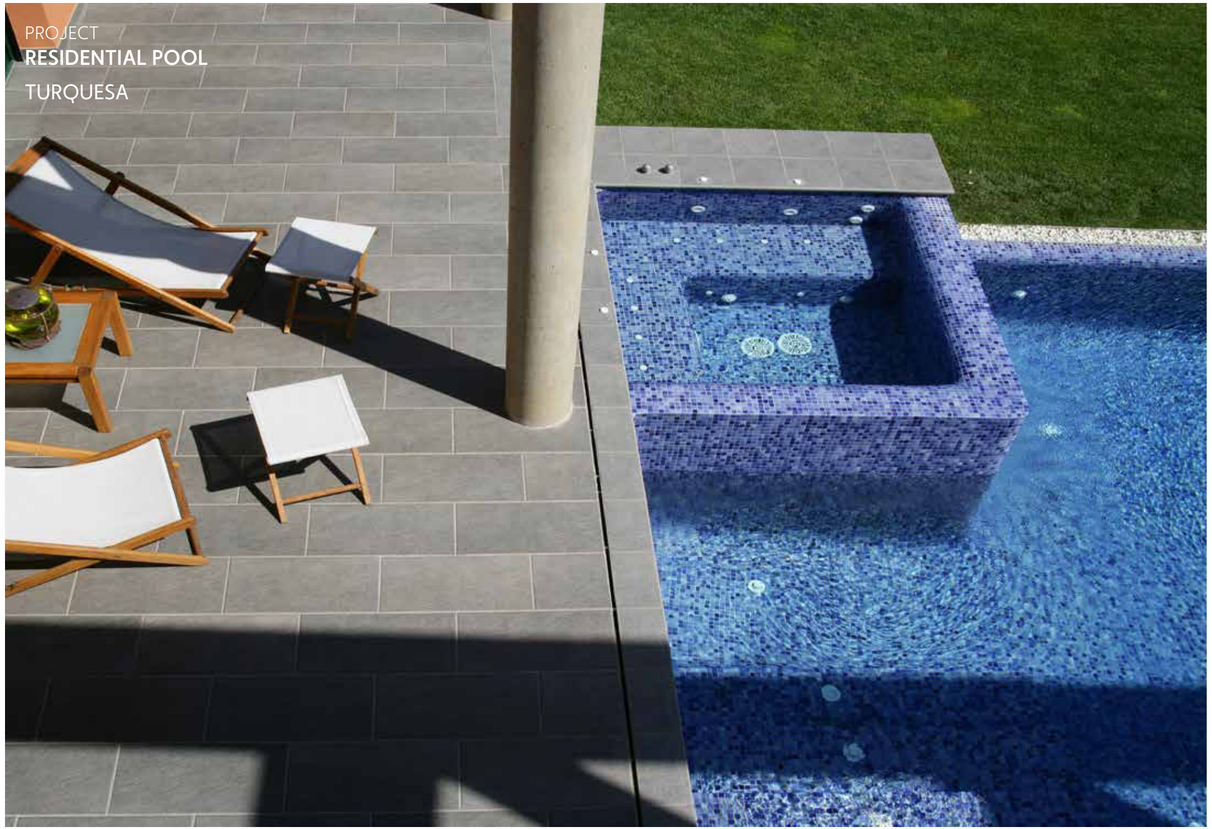
**PACIFIC**
33,4 x 33,4 cm. | 13,15" x 13,15"
PACI25Y **L4**

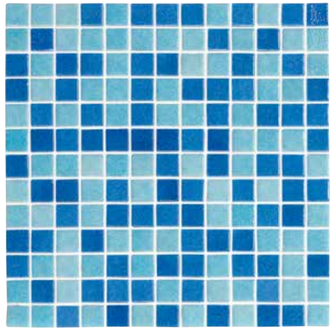
33% **G325** / 33% **G322** / 33% **NIEBLA PISCINA**



**MURANO**
33,4 x 33,4 cm. | 13,15" x 13,15"
MURA25Y **L3**

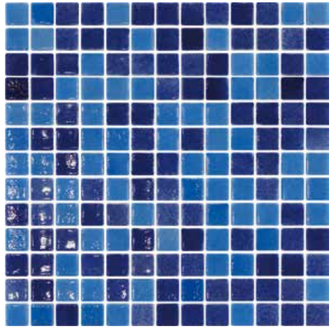
80% **202** / 20% **G326**



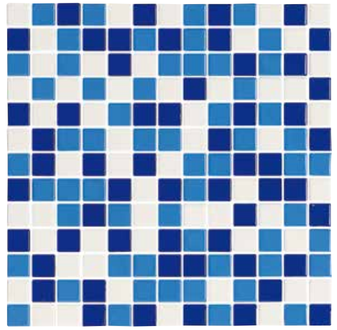
50% **NIEBLA AZUL** / 50% **NIEBLA PISCINA**

**CARIBE**
33,4 x 33,4 cm. | 13,15" x 13,15"
CARI25Y **L1**



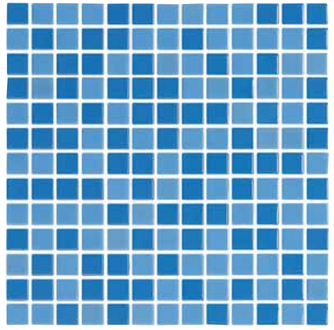
50% **NIEBLA AZUL** / 50% **NIEBLA FUERTE**

**TURQUESA**
33,4 x 33,4 cm. | 13,15" x 13,15"
TURQ25Y **L1**



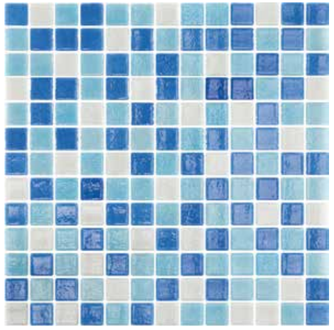
33% **AZUL FUERTE** / 33% **AZUL MEDIO** / 33% **BLANCO**

**AGUAMARINA**
33,4 x 33,4 cm. | 13,15" x 13,15"
AGUA25Y **L2**



50% **AZUL MEDIO** / 50% **AZUL CLARO**

**MAURICIO**
33,4 x 33,4 cm. | 13,15" x 13,15"
MAUR25Y **L1**



40% **NI. AZUL** / 40% **NI. PISCINA** / 20% **NI. BLANCO**

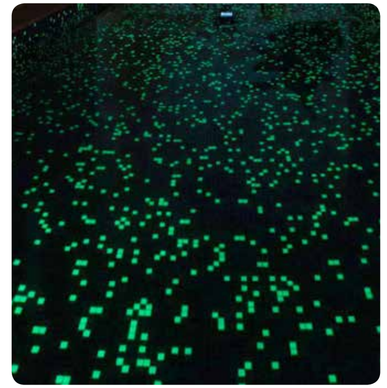
**IBIZA**
33,4 x 33,4 cm. | 13,15" x 13,15"
IBIZ25Y **L1**



33% **202** / 33% **203** / 33% **204**

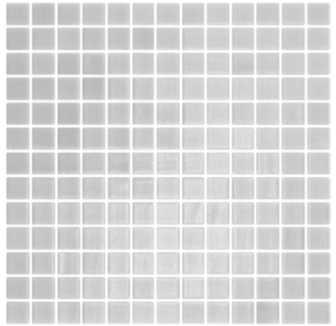
**AZORES**
33,4 x 33,4 cm. | 13,15" x 13,15"
AZOR25Y **L2**

TOGAMA
MORE THAN MOSAIC



**ESPECIAL** SPECIAL ***SPÉCIAL***





**METALIZADO** · METAL FINISHED

**MT 01**
33,4 x 33,4 cm. | 13,15" x 13,15"
MT0125Y2 **E1**

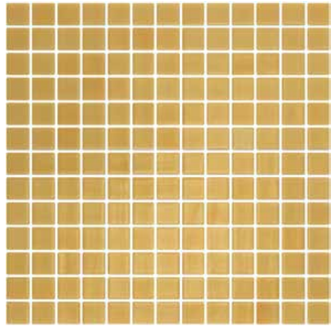


**LUMINISCENTE** · LUMINISCENT

**LU 01**
33,4 x 33,4 cm. | 13,15" x 13,15"
LU0125Y2 **J1**







**METALIZADO** · METAL FINISHED

**MT 02**
33,4 x 33,4 cm. | 13,15" x 13,15"
MT0225Y2 **E2**

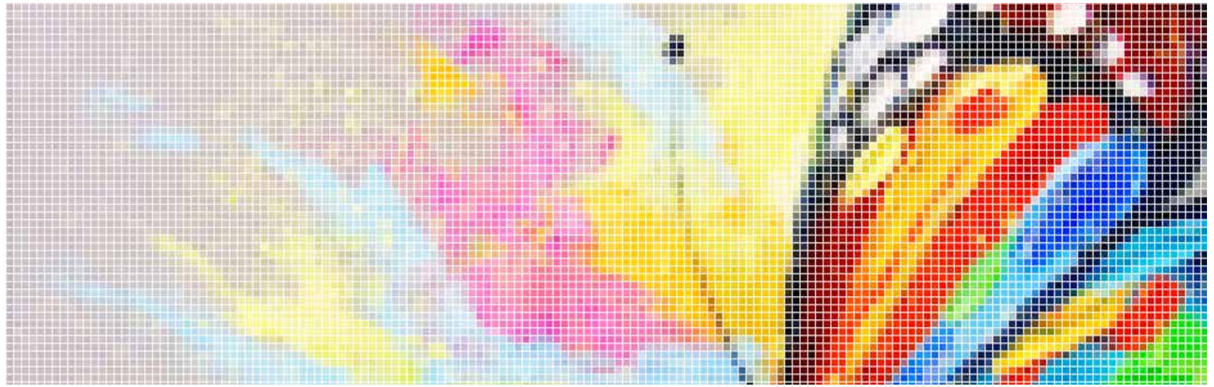


**LUMINISCENTE** · LUMINISCENT

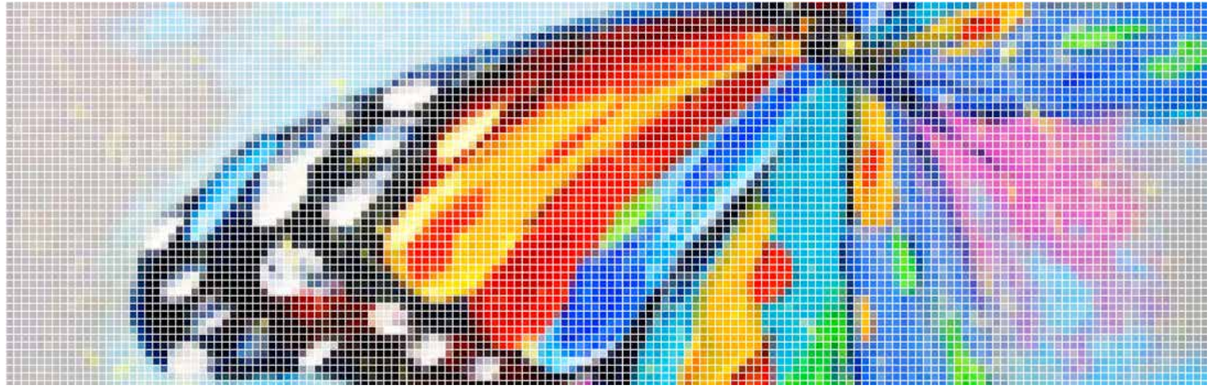
**LU 02**
33,4 x 33,4 cm. | 13,15" x 13,15"
LU0225Y2 **J1**



TOGAMA
MORE THAN MOSAIC



**DISEÑO PERSONALIZADO** CUSTOM DESIGN ***DESSINS PERSONALISÉS***



PROJECT
**HOTEL BITACORA**
CANARY ISLANDS, SPAIN

CUSTOM DESIGN





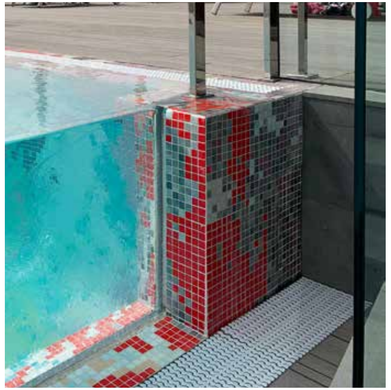








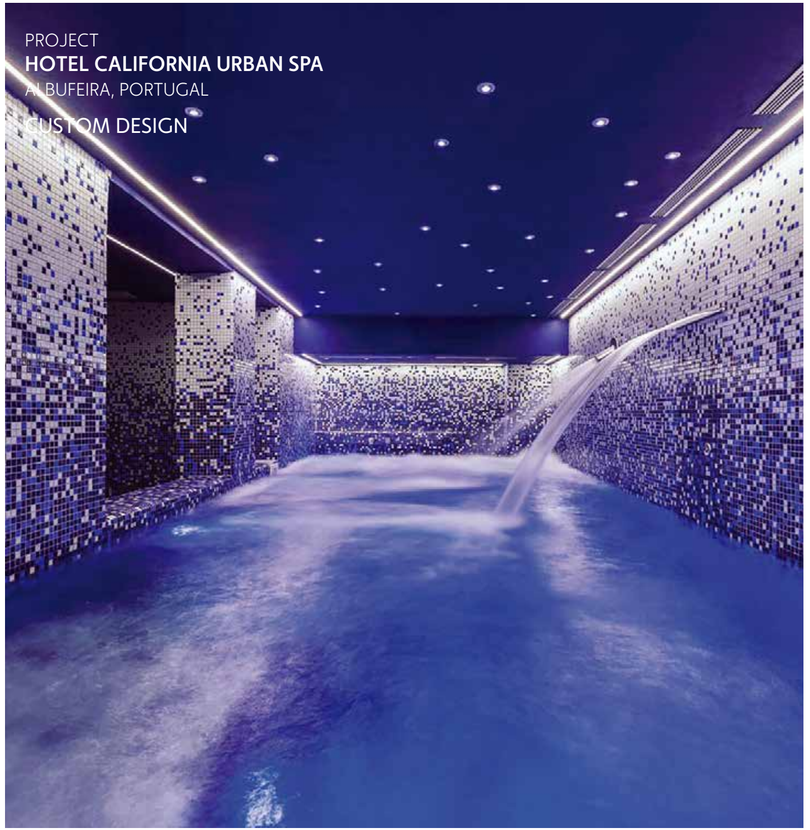


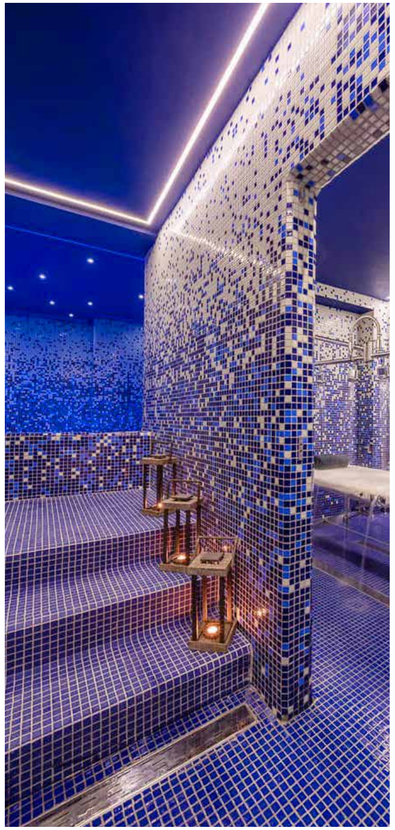




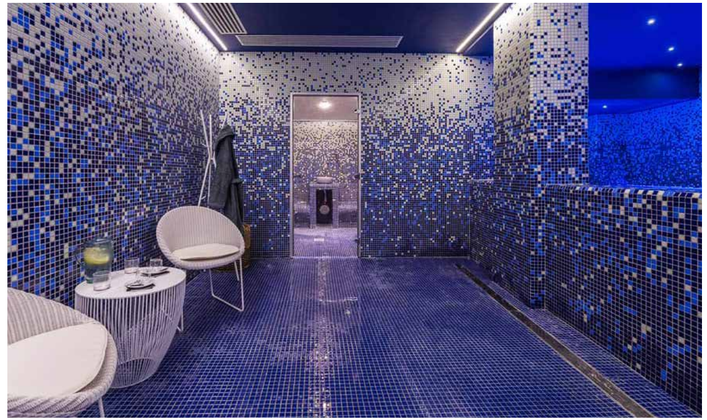


PROJECT
**HOTEL CALIFORNIA URBAN SPA**
ALBUFEIRA, PORTUGAL
CUSTOM DESIGN











PROJECT
**FUNAN MALL**
SINGAPUR

CUSTOM DESIGN









PROJECT
**HOTEL & RESORT CALA PADA**
IBIZA, SPAIN

CUSTOM DESIGN









PROJECT
**FOUNTAINS**

CUSTOM DESIGN







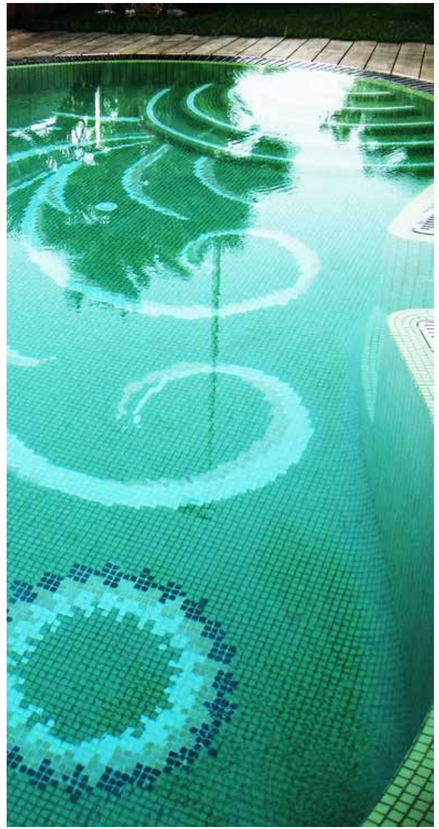
PROJECT
**PRIVATE VILLAS**
BENICASIM, SPAIN

CUSTOM DESIGN

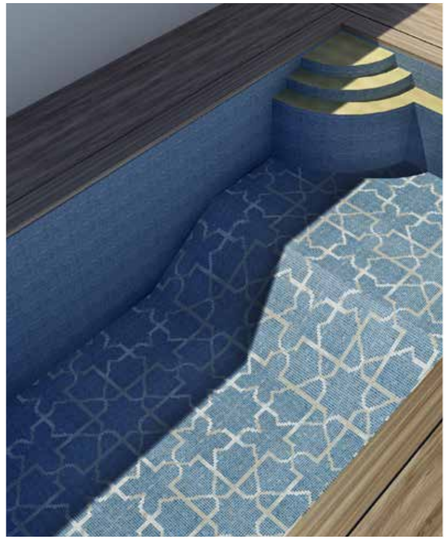








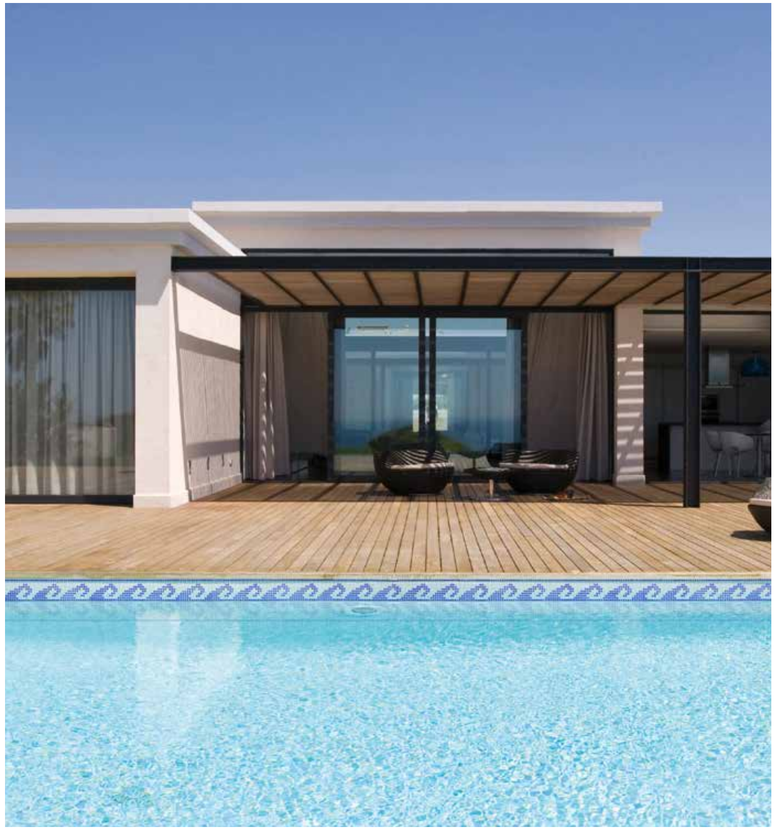

TOGAMA
MALLORCA
ROCKS
APARTMENTS

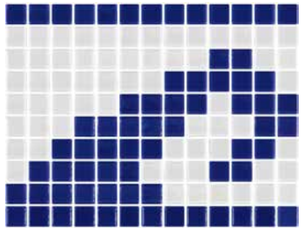










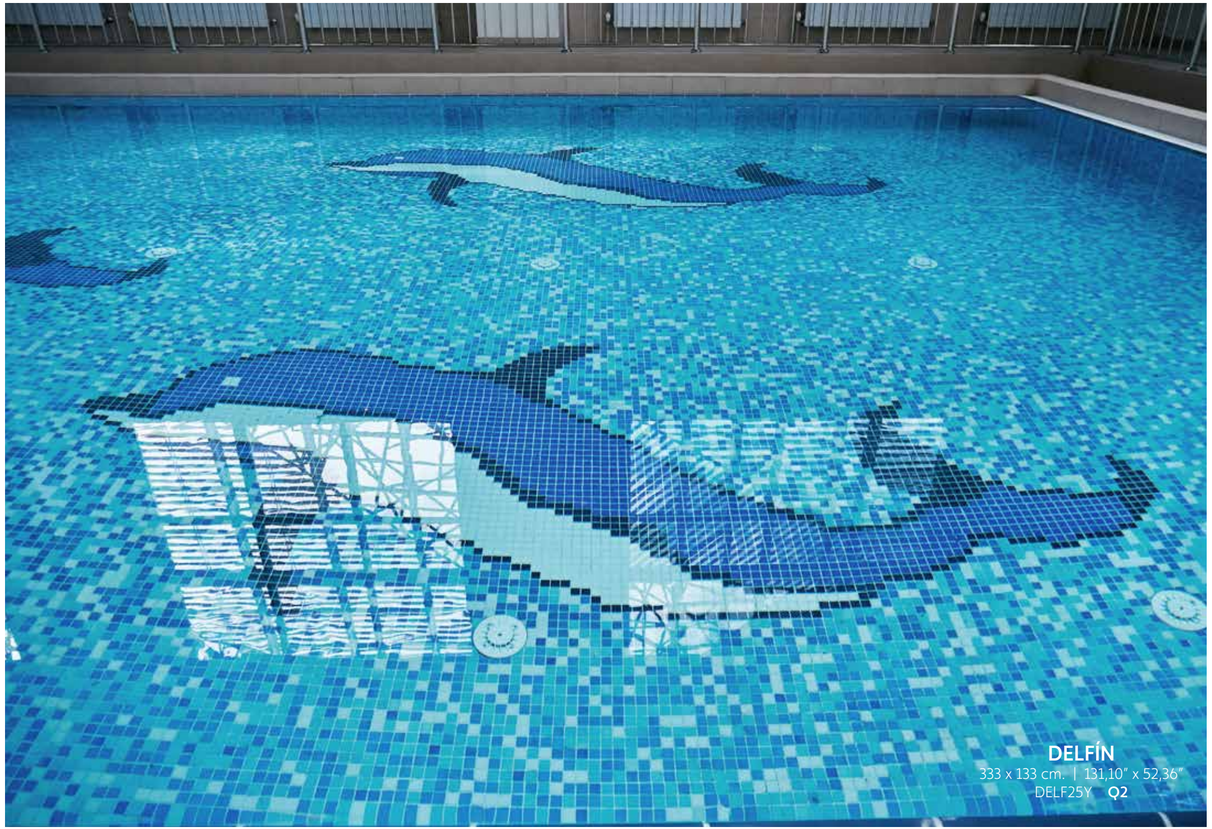


**CENEFA OLAS**
33,4 x 26 cm. | 13,1" x 10,2"
CENE06Y **Q5**



**CENEFA Nº2**
31 x 14,5 cm. | 12,2" x 6,1"
CE0225Y **P1**

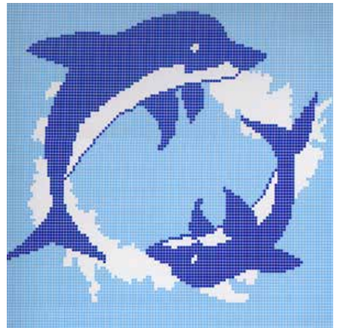




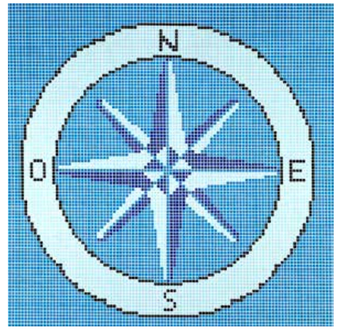
**DELFÍN**
333 x 133 cm. | 131,10" x 52,36"
DELF25Y **Q2**





**DELFINES JUGANDO**
300 x 300 cm. | 118,11" x 118,11"
DEJU25Y **Q1**




**ROSA DE LOS VIENTOS**
267 x 267 cm. | 105,12" x 105,12"
RVGR25Y **Q3**



**CARACTERÍSTICAS TÉCNICAS**

TECHNICAL FEAUTURES *CARACTÉRISTIQUES TECHNIQUES*

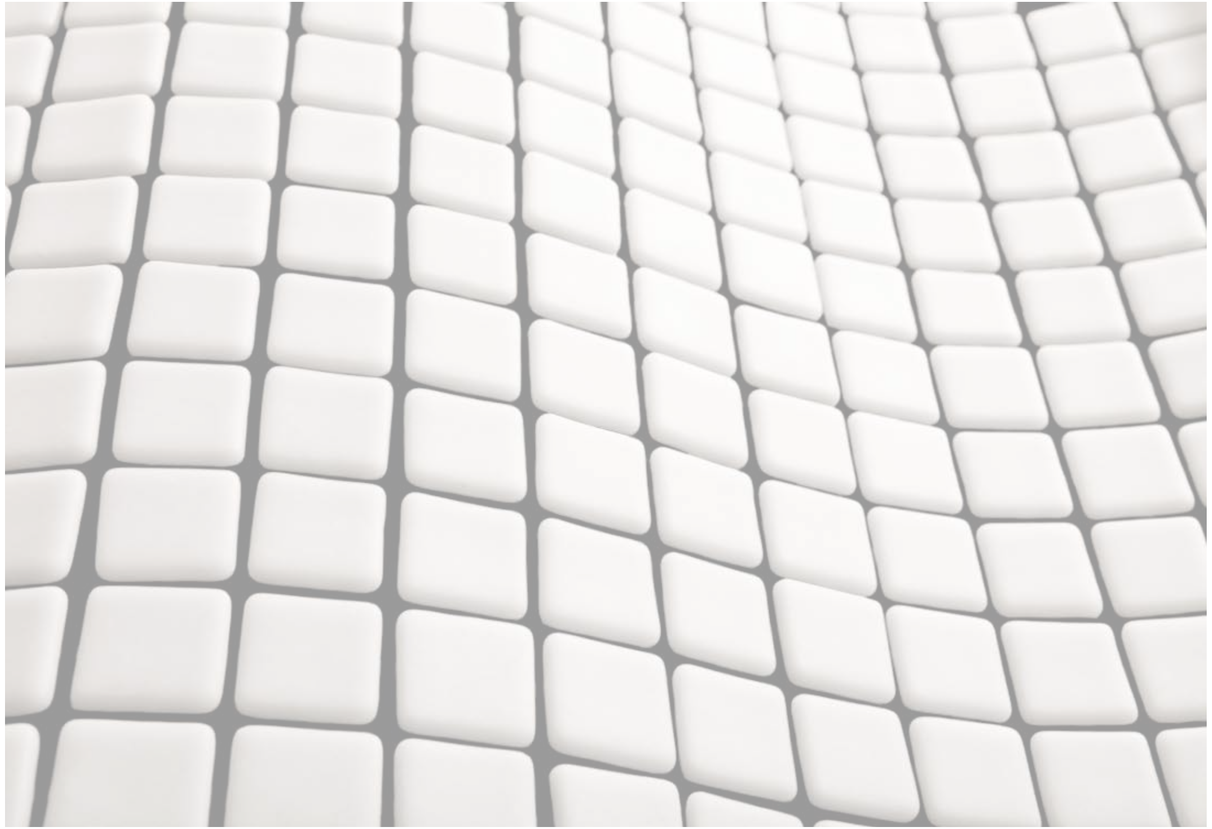


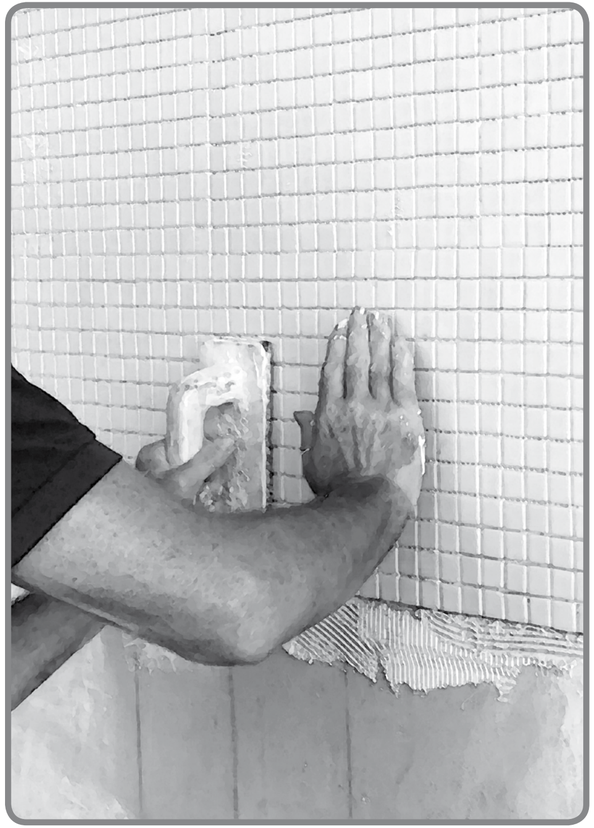

## **CARACTERÍSTICAS TÉCNICAS** / TECHNICAL FEATURES / *CARACTÉRISTIQUES TECHNIQUES*

| NORMA | DESCRIPCIÓN NORMA | SIXTIES | 2,5x2,5 / 5x5 | MIX DECOR | MATT SIXTIES | SILK 5x5 - SILK | INKFINITY |
|---|---|---|---|---|---|---|---|
| UNE-EN ISO 10545-3 | ABSORCIÓN DE AGUA / WATER ABSORPTION / ABSORTION D'EAU | < 0,20% | <0,10% | <0,10% | <0,20% | <0,10% | <0,10% |
| UNE-EN ISO 10545-12 | RESISTENCIA A LA HELADA / FROST RESISTANCE / RÉSISTANCE AU GEL | RESISTE | RESISTE | RESISTE | RESISTE | RESISTE | RESISTE |
| UNE-EN ISO 10545-13 | RESISTENCIA QUÍMICA / CHEMICAL RESISTANCE /RÉSISTANCE CHIMIQUE | A/LA/HA | A/LA/HA | A/LC/HC | A/LA/HA | A/LA/HA | A/LA/HA |
| UNE-EN ISO 10545-14 | RESISTENCIA A LAS MANCHAS / STAIN RESISTANCE /RÉSISTANCE AU XTÂCHE | CLASE 4 | CLASE 5 | CLASE 5 | CLASE 4 | CLASE 5 | CLASE 5 |
| UNE 67-101:1985+1M:92 | DUREZA AL RAYADO DE LA SUPERFICIE MOHS<br>SCRATCH HARDNESS ACCORDING TO MOHS<br>RÉSISTANCE AUX RAILLURE SELONT PARAMÈTRE MOHS | 6 | 5 | 5 | 6 | 7 | 4 |
| UNE-41901:2017 EX | RESISTENCIA AL DESLIZAMIENTO (PÉNDULO)<br>SLIP RESISTANCE (PENDULUM)<br>COEFICIENT DE FRICTION DINAMIQUE SELON MÉTHODE (PENDULE) | CLASE 1 | | | CLASE 3 | CLASE 3 | CLASE 2 |
| DIN 51130 Apdo 5 | ÁNGULO CRÍTICO DE DESLIZAMIENTO (RAMPA)<br>CRITICAL ANGLE OF SLIP (INCLINED PLATFORM)<br>ANGLE CRÍTIQUE ANTIDÉRAPANT (RAMPE) | | | | R11 | R11 | R10 |
| DIN 51097 | ÁNGULO CRÍTICO DE DESLIZAMIENTO.<br>ZONAS HUMEDAS DE ANDAR DESCALZO.<br>CRITICAL ANGLE OF SLIP. WET-LOADED BAREFOOT AREAS<br>ANGLE CRITIQUE ANTIDÉRAPANT EN ZONES HUMIDES A PIED NUE | | | | CLASE C | CLASE C | CLASE C |
| ISO/DIS 10545-17 | COEFICIENTE DE FRICCIÓN DINÁMICO (TORTUS)<br>DYNAMIC COEFFICIENT OF FRICTION (TORTUS)<br>COÉFICIENT DE FRICTION DINAMIQUE (TORTUS) | | | | SATISFACTORIO | SATISFACTORIO | |
| ANSI A137:1x | COEFICIENTE DE FRICCIÓN DINÁMICO (DCOF)<br>DYNAMIC COEFFICIENT OF FRICTION (DCOF)<br>COEFFICIENT DE FRICTION DYNAMIQUE (DCOF) | | | | 0,59 | 0,74 | 0,64 |
| UNE 138001 | RESISTENCIA AL DESGASTE POR TRÁNSITO PEATONAL<br>RESISTANCE TO WEAR BY PEDESTRIAN TRAFFIC<br>RÉSISTANCE À L'USURE DES PIÉTONS | H6 | | | H6 | | H6 |

## **EMBALAJE** / PACKING LIST / *LISTE DE COLISAGE*

| | | BOX BOÎTE CAJA | | | | PALLET PALETTE PALET | | | EUROPALLET EUROPALETTE EUROPALET | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| COLLECTION<br>COLLECTION<br>SERIE | FORMAT<br>FORMAT<br>FORMATO | BOX<br>BOÎTE<br>CAJA | KG/BOX<br>KG/BOÎTE<br>KG/CAJA | SHEETS/BOX<br>PLAQUES/BOÎTE<br>PLACAS/CAJA | DIMENSION OF SHEET<br>MESURE DE LA PLAQUE<br>DIMENISÓN PLACA (mm) | PALLET<br>PALETTE<br>PALET (m2) | BOXES/PAL<br>BOÎTES/PAL<br>CAJAS/PAL | KG/PAL<br>KG/PAL<br>KG/PAL | EUROPALLET<br>EUROPALETTE<br>EUROPALET (m2) | BOXES/EPAL<br>BOÎTES/EPAL<br>CAJAS/EPAL | KG/EPAL<br>KG/EPAL<br>KG/EPAL |
| SIXTIES - MATT SIXTIES - PETRA | 50x44 | 1 m2 | 11 kg | 11 | 330 X 298 | 54 m2 | 54 boxes | 604 kg | 36 m2 | 36 boxes | 420 kg |
| 2,5 x 2,5 - SILK | 25X25 | 2 m2 | 18 kg | 18 | 334 X 334 | 144 m2 | 72 boxes | 1.306 kg | 96 m2 | 48 boxes | 886 kg |
| BORA - MYTHOS - MIX | 25X25 | 2 m2 | 18 kg | 18 | 334 X 334 | 144 m2 | 72 boxes | 1.306 kg | 96 m2 | 48 boxes | 886 kg |
| MIST- BORA 5x5 - 5 x 5 - SILK | 50x50 | 2 m2 | 22 kg | 20 | 310 X 310 | 108 m2 | 54 boxes | 1.198 kg | 72 m2 | 36 boxes | 814 kg |
| | | | | | | | | | | | |
| CENEFA 2 | 25x25 | 11 ml | 17 kg | 36 | 310 X 145 | 792 ml | 72 boxes | 1.234 kg | 528 ml | 48 boxes | 838 kg |
| CENEFA OLAS | 25X25 | 6 ml | 14 kg | 18 | 334 X 260 | 432 ml | 72 boxes | 1.018 kg | 288 ml | 48 boxes | 694 kg |





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# 1 **MOSAICO VÍTREO** / GLASS MOSAIC / *MOSAÏQUE EN PATÊ DE VERRE*




- El mosaico vítreo de TOGAMA se fabrica en España desde 1987, a partir de vidrio de origen 100% reciclado. Dicho vidrio sufre diversas transformaciones durante el proceso productivo mediante una serie de operaciones de molturación, prensado y cocción a alta temperatura, obteniendo finalmente unas teselas de vidrio con características técnicas propias y en diversos formatos.

  Tras la cocción, las teselas pasan a una etapa de mezclado y homogeneización con el fin de obtener una destonificación armoniosa y realzar la belleza del mosaico.

  Por último, las teselas se unen entre sí mediante la tecnología UNNION Polyurethane System, la cual le otorga consistencia y flexibilidad al panel de mosaico, para su fácil colocación.

  El mosaico vítreo puede presentar algunos bordes irregulares y ligeras variaciones en su tamaño, debido a su elevada contracción en el proceso de cocción, las cuales son características propias del mosaico. Estas ligeras variaciones, presentan un bajo impacto en el acabado final, lo cual da aspecto natural propio del mosaico.

  El mosaico vítreo tiene las propiedades de resistir productos químicos, heladas, resistencia a las manchas, a la abrasión, a radiaciones solares, cambios de temperatura y posee nula porosidad. Por su inalterabilidad, fácil limpieza y colocación, es ideal para revestir piscinas, baños, cocinas y zonas de alto tránsito.

- Togama vitreous mosaic has been manufactured in Spain since 1987, from 100% recycled glass. This glass undergoes various transformations during the production process through a series of milling, pressing and firing operations at high temperature, finally obtaining glass tiles with its own technical characteristics and in various formats.

  After laying, the tiles go through a mixing and homogenization stage in order to obtain a harmonious de-toning and enhance the beauty of the mosaic.

  Finally, the tessera are joined together by means of our UNNION POLYURETHANE SYSTEM technology, which gives consistency and flexibility to the mosaic panel, for easy placement.

  The glass mosaic may present some irregular edges and slight variations in its size, due to its high shrinkage in the firing process, which are characteristic of the mosaic. These slight variations present a low impact on the final finish, which gives the mosaic's own natural appearance.

  The vitreous mosaic has the properties of resisting chemicals, frost, resistance to stains, abrasion, solar radiation, temperature changes and has zero porosity. Due to its inalterability, easy cleaning and placement, it is perfect for lining swimming pools, bathrooms, kitchens and high traffic areas.

- *La mosaïque vitreuse Togama est fabriquée en Espagne depuis 1987, à partir de verre 100% recyclé. Ce verre subit diverses transformations au cours du processus de production à travers une série d'opérations de fraisage, pressage et cuisson à haute température, obtenant finalment des carreaux de verre avec ses propres caractéristiques techniques et dans de différents formats.*

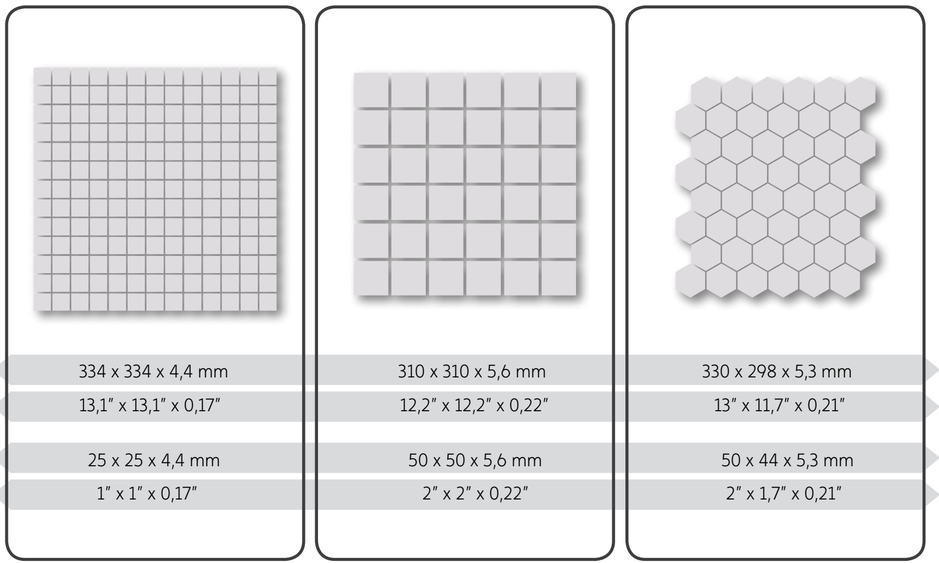
  *Après la pose, les carreaux passent par une étape de mélange et d'homogénéisation afin de rehausser la beauté de la mosaïque et d'obtenir une tonification harmonieuse.*

  *A la fin du processus , les tesselles sont assemblées avec notre technologie UNNION POLYURETHANE SYSTEM, qui donne de la cohérence et flexibilité a la plaque de mosaïque, pour une installation facile.*

  *La mosaïque en pâte de verre peut présenter des bords irréguliers et de légères variations dans sa taille, en raison de son fort retrait lors du processus de cuisson (caractéristiques specifiques de la mosaïque). Ces légères variations présentent un faible impact sur l'ultime finition, ce qui donne à la mosaïque son propre aspect naturel.*

  *La mosaïque vitreuse a les propriétés de résister aux produits chimiques, au gel, aux taches, à l'abrasion, au rayonnement solaire, aux changements de température et n'a aucune porosité. En raison de son inaltérabilité, de son nettoyage et de son installation faciles, il est parfait pour le revêtement des piscines, des salles de bains, des cuisines et des zones à fort trafic.*

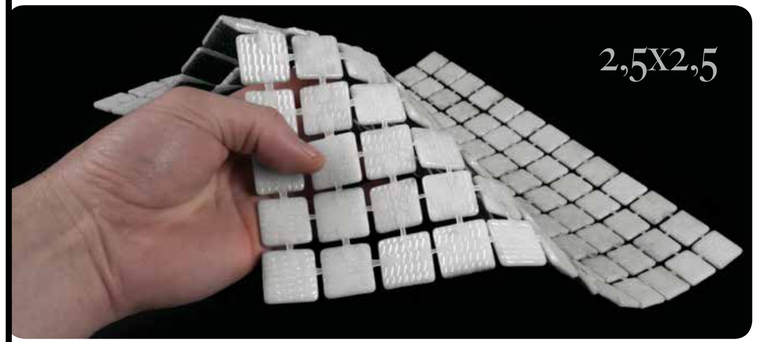
- **FORMATOS Y DIMENSIONES** / FORMATS AND DIMENSIONS / FORMATS ET DIMENSIONS

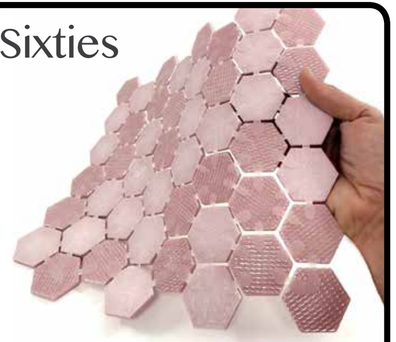


| | | | |
|---|---|---|---|
| **PLACA** SHEET *PLAQUE* | 334 x 334 x 4,4 mm | 310 x 310 x 5,6 mm | 330 x 298 x 5,3 mm |
| | 13,1" x 13,1" x 0,17" | 12,2" x 12,2" x 0,22" | 13" x 11,7" x 0,21" |
| **TESELA** TESSERA *TESSÈRE* | 25 x 25 x 4,4 mm | 50 x 50 x 5,6 mm | 50 x 44 x 5,3 mm |
| | 1" x 1" x 0,17" | 2" x 2" x 0,22" | 2" x 1,7" x 0,21" |

## 2 TECNOLOGÍA DEL SOPORTE. / SUPPORT TECHNOLOGY. / *TECHNOLOGIE DE SUPPORT.*
**PUNTO DE POLIURETANO** POLYURETHANE DOT *POINT POLYURÉTHANE*

UNNION
POLYURETHANE SYSTEM







**Resistencia**
Resistance
*Résistance*

**Durabilidad**
Durability
*Durabilité*

**Fácil Colocación**
Easy Installation
*Installation facile*

**Flexibilidad**
Flexibility
*Fléxibilité*

**No invade las juntas**
Does not invade the joints
*N´envahit pas les joints*

**Excelente Agarre**
Excellent Grip
*Adhérence excellente*

## 3 PREPARACIÓN DE LA SUPERFICIE / SURFACE PREPARATION / *PRÉPARATION DE LA SURFACE*

- **LIMPIEZA.** La superficie debe estar totalmente limpia antes de aplicar el mortero de agarre o el adhesivo.
Cualquier residuo presente en la colocación impedirá la adhesión, por lo que es esencial limpiar completamente.
¿Cómo limpiar el superficie?
  - Eliminar por cepillado cualquier resto de polvo.
  - Eliminar los restos de aceites y ceras limpiando con productos detergentes.
  - Eliminar cualquier resto de pintura o yeso con una espátula.

**ESTABILIDAD.** La superficie deberá ser estable, sin ningún tipo de desprendimiento. La superficie deberá estar perfectamente lisa y uniforme. Reparar las posibles grietas o fisuras que presente la superficie antes de comenzar la instalación.

**HUMEDAD.** La superficie debe estar seca, el grado de humedad deberá ser inferior al 3%.

**PLANICIDAD.** La superficie debe estar nivelada, pudiéndose emplear morteros de nivelación o incluso capas impermeabilizadoras y de drenaje. La desviación máxima medida con una regla de 2m no excederá los 3mm.

- **CLEANING** The surface must be completely clean before applying the mortar or adhesive. Any residue present in the installation will prevent adhesion, so it is essential to clean thoroughly.
How to clean the surface?
  - Brush off any remaining dust.
  - Remove traces of oils and waxes by cleaning with detergent products.
  - Remove any paint or plaster challenges with a putty knife.

**STABILITY** The surface must be stable, without any type of detachment. The surface must be perfectly smooth and uniform. Repair any cracks or fissures on the surface before starting the installation.

**HUMIDITY** The surface must be dry; the degree of humidity must be less than 3%.

**FLATNESS** The surface must be levelled, being able to use levelling mortars or even waterproofing and drainage layers. The maximum deviation measured with a 2m ruler shall not exceed 3 mm.

- ***NETTOYAGE*** *La surface doit être parfaitement propre avant d'appliquer le mortier ou l'adhésif. Tout résidu présent dans l'installation empêchera l'adhérence, il est donc essentiel de bien nettoyer.*
*Comment nettoyer la surface?*
  - *Brossez toute poussière restante.*
  - *Éliminer les traces d'huiles et de cires en nettoyant avec des produits détergents.*
  - *Retirez toute trace de peinture ou de plâtre avec un couteau à mastic.*

***LA STABILITÉ*** *La surface doit être net, sans aucun type de détachement. La surface doit être parfaitement lisse et uniforme. Réparez les fissures sur la surface avant de commencer l'installation.*

***HUMIDITÉ*** *La surface doit être sèche; le degré d'humidité doit être inférieur à 3%.*

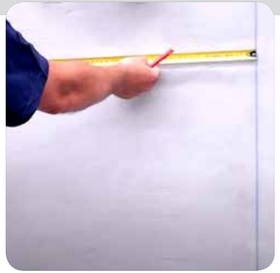
***PLATITUDE*** *La surface doit être plate, pouvant utiliser des mortiers de nivellement ou même des couches d'imperméabilisation et de drainage. L'écart maximal mesuré avec une règle de 2 m ne doit pas dépasser 3 mm.*







## 4 PLANIFICACIÓN DE LA COLOCACIÓN / PLACEMENT PLANNING / *PLANIFICATION DES PLACEMENTS*



La colocación en un espacio interior sería de arriba hacia abajo, para que en caso de tener que realizar cualquier corte en el mosaico, éste se realice en el suelo para disminuir el impacto visual.
Para la colocación en una piscina comenzaremos de arriba hacia abajo en las paredes, después seguiremos con las escaleras y terminaremos con el suelo.
En lugares que suelen tener contacto con el agua como el jardín, la piscina, el baño, terrazas y escaleras, el mosaico vitreo antideslizante puede cubrir la solución de pavimentación gracias a su certificación de clase 3.
** TOGAMA recomienda revisar el material antes de su instalación así como de los primeros 6 metros instalados.*

The placement in an interior space would be from top to bottom, so that in case of having to make any cut in the mosaic, it will be done on the floor to reduce the visual impact.
For placement in a pool, we will start from the top down on the walls, and then we will continue with the stairs and will end with the floor.
In places that often have contact with water such as the garden, swimming pool, bathroom, terraces and stairs, the non-slip glass mosaic can cover the flooring solution thanks to its class C3.
** TOGAMA recommends checking the material before its installation as well as the first 6 meters installed.*

*Le placement dans un espace intérieur se ferat de haut en bas, de manière a reduire en cas de coupe au sol l'impact visuel.*
*Pour le placement dans une piscine, nous commencerons de haut en bas sur les murs, puis nous continuerons avec les escaliers et nous terminerons par le sol.*
*Dans les endroits souvent en contact avec l'eau comme le jardin, la piscine, la salle de bain, les terrasses et les escaliers, la mosaïque de verre antidérapante peut etre la solution de revêtement de sol grâce à sa classe C3.*
** TOGAMA recommande de vérifier le matériel avant son installation ainsi que les 6 premiers mètres installés.*

## 5 ELECCIÓN DEL ADHESIVO / CHOICE OF ADHESIVE / *CHOIX D'ADHÉSIF*

La calidad de la instalación dependerá de la adecuada selección y utilización del material de agarre. Debemos tener en cuenta lo siguiente:
• El lugar donde se realizará la colocación, un soporte que está en el exterior, en interior o sumergido en agua.
• El tipo de soporte donde se va a realizar la colocación (hormigón, yeso, ...)
• Las características técnicas del mosaico vitreo, su absorción al agua es prácticamente nula por lo que vamos a necesitar un material con unas características de agarre superiores.

TOGAMA recomienda un adhesivo cementoso mejorado con deslizamiento vertical nulo C2 y con tiempo abierto prolongado, para superficies de hormigón.

The quality of the installation will depend on the proper selection and use of the gripping material. We must take into account the following:
• The place where the placement will take place, a surface that is outdoors, indoors or submerged in water.
• The type of surface where the installation has to be carried out (concrete, plaster ...)
• The technical characteristics of the glass mosaic, its water absorption is practically nil, so we will need a material with superior grip characteristics.

TOGAMA recommends a C2 zero vertical slip enhanced cementitious adhesive with long open time for concrete surfaces.

*La qualité de l'installation dépendra de la sélection et de l'utilisation appropriées du matériau de préhension. Nous devons prendre en compte les éléments suivants:*
*• L'endroit où le placement aura lieu, une surface extérieure, intérieure ou immergée dans l'eau.*
*• Le type de surface où l'installation doit être réalisée (béton, plâtre ...)*
*• Les caractéristiques techniques de la mosaïque en pâte de verre, son absorption d'eau est pratiquement nulle, nous aurons donc besoin d'un matériau avec des caractéristiques d'adhérence supérieures.*

*TOGAMA recommande un adhésif cimentaire amélioré à glissement vertical C2 zéro avec un long temps ouvert pour les surfaces en béton.*

## 6 COLOCACIÓN / PLACEMENT / *PLACEMENT*







Para que el adhesivo se comporte de la manera adecuada se deberán seguir las recomendaciones de uso del fabricante.
Amasando el adhesivo, obtendremos una pasta homogénea y cremosa, sin grumos ni burbujas de aire.
Las condiciones ambientales de aplicación deberán ser:
- La temperatura ambiente entre 5º C y 30º C
- La velocidad del viento inferior a 50 km/hora.
- Sin lluvia

El adhesivo se aplicará sobre la superficie de colocación con una llana dentada de 2-3 mm. El mosaico deberá colocarse dentro del tiempo abierto del adhesivo, antes de que se forme una película seca en la superficie que impida la adherencia. Por este motivo aconsejamos no extender más de 2 m2. Colocar los paneles y presionar con una llana de goma para que todos los mosaicos queden perfectamente adheridos.
Corregir los defectos de alineación con la llana de goma y quitar el exceso de adhesivo con una esponja. Repetir el proceso anterior hasta terminar de revestir la superficie.
Dejar que fragüe el adhesivo según las recomendaciones del fabricante, aprox. 24 horas.

For a good and correct adhesion, the manufacturer's recommendations must be followed. We will obtain a homogeneous and creamy paste, without lumps or air bubbles by Kneading the adhesive.
The environmental conditions of application have to be the followings:
- An ambient temperature between 5º C & 30º C
- Wind speed less than 50 km / hour.
- Without rain

The adhesive will be applied to the installation surface with a 2-3 mm notched trowel. The mosaic should be placed within the open time of the adhesive, before a dry film forms on the surface that prevents adhesion. For this reason, we advise to not extend more than 2 m2. Place the panels and press with a rubber trowel so that all the mosaics are perfectly adhered.
Correct any misalignment with the rubber trowel and remove excess adhesive with a sponge. Repeat the above process until finishing coating the surface.
Leave the adhesive to set according to the manufacturer's recommendations, approx. 24 hours.

*Pour une bonne et correcte adhérence, les recommandations du fabricant doivent être suivies. On obtiendra une pâte homogène et crémeuse, sans grumeaux ni bulles d'air en pétrissant la colle.*
*Les conditions environnementales d'application doivent être les suivantes:*
- *Une température ambiante comprise entre 5 ° C et 30 ° C*
- *Vitesse du vent inférieure à 50 km / heure.*
- *Sans pluie*

*L'adhésif sera appliqué sur la surface d'installation avec une taloche crantée de 2-3 mm. La mosaïque doit être placée pendant le temps ouvert de l'adhésif, avant qu'un film sec ne se forme sur la surface qui empêche l'adhérence. Pour cette raison, nous vous conseillons de ne pas étendre plus de 2 m2. Placer les panneaux et presser avec une taloche en caoutchouc pour que toutes les mosaïques adhèrent parfaitement.*
*Corrigez tout défaut d'alignement avec la truelle en caoutchouc et enlevez l'excès d'adhésif avec une éponge. Répétez le processus ci-dessus jusqu'à la finition du revêtement de la surface.*
*Laisser l'adhésif durcir selon les recommandations du fabricant, env. 24 heures*

## 7 ELECCIÓN Y APLICACIÓN DE LA JUNTA / ELECTION AND APPLICATION OF THE BOARD / *SÉLECTION ET APPLICATION DU JOINT*

### ELECCIÓN DE LA JUNTA

La junta tiene dos tipos de funciones:

| | |
|---|---|
| **Función estética**. | • Realzan las posibilidades estéticas del mosaico. |
| **Función mecánica** | • Absorción de las deformidades del soporte base. |
| | • Absorción de las dilataciones debido a los cambios térmicos. |
| | • La impermeabilidad. |

Las juntas se clasifican según la norma europea UNE-EN 13888 :

**CG 1**: Morteros de juntas cementosas normal.
**CG 2**: Morteros de juntas cementosas mejorados.
**RG**: Mortero de juntas de resinas reactivas. Su endurecimiento resulta de una reacción química.



### APLICACIÓN DE LA JUNTA

- Las juntas deben estar limpias, secas y exentas de polvo.
- Se debe obtener una masa homogénea y cremosa, sin grumos ni burbujas de aire.
- El adhesivo sobrante de la colocación se debe eliminar cuando esté todavía fresco.
- Aplicaremos con una llana de goma la pasta de rejuntado rellenando bien todas las juntas.
- Después de 2 m2 de pasta aplicada limpiar los excesos de junta.
- Las condiciones ambientales para aplicar la junta deberán ser sin lluvia y con temperaturas entre 5º C y 30º C.

### BOARD ELECTION

The board has two types of functions:

| | |
|---|---|
| Aesthetic function. | • They enhance the aesthetic possibilities of the mosaic. |
| Mechanical function | • Absorption of the deformities of the base support. |
| | • Absorption of expansions due to thermal changes. |
| | • The impermeability. |

The joints are classified according to the European standard UNE-EN 13888:

CG 1: Mortars for normal cementitious joints.
CG 2: Improved cementitious joint mortars.
RG: Reactive resin joint mortar. Its hardening results from a chemical reaction.

### APPLICATION OF THE BOARD

- The joints must be clean, dry and free of dust.
- You must obtain a homogeneous and creamy grouting paste, without lumps or air bubbles.
- Excess adhesive from the installation should be removed while still fresh.
- Apply the grouting paste with a rubber trowel, filling properly all the joints well.
- After 2 m2 of applied paste, clean any excess joint.
- The environmental conditions to apply the joint must be without rain and with temperatures between 5º C & 30º C.

### *SÉLECTION DU JOINT*

*Le joint a deux types de fonctions:*

| | |
|---|---|
| *Fonction esthétique.* | • *Ils améliorent les possibilités esthétiques de la mosaïque.* |
| *Fonction mécanique* | • *Absorption des déformations du support de base.* |
| | • *Absorption des expansions dues aux changements thermiques.* |
| | • *L'imperméabilité.* |

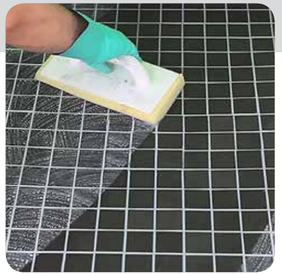
*Les joints sont classés selon la norme européenne UNE-EN 13888:*

*CG 1: Mortiers pour joints cimentaires normaux.*
*CG 2: Mortiers à joints cimentaires améliorés.*
*RG: Mortier de joint en résine réactive. Son durcissement résulte d'une réaction chimique.*

### *APPLICATION DU JOINT*

- *Les joints doivent être propres, secs et exempts de poussière.*
- *Vous devez obtenir une pâte de jointoiement homogène et crémeuse, sans grumeaux ni bulles d'air.*
- *L'excès d'adhésif de l'installation doit être enlevé alors qu'il est encore frais.*
- *Appliquer la pâte de jointoiement avec une taloche en caoutchouc en remplissant correctement tous les joints.*
- *Après 2 m2 de pâte appliquée, nettoyer tout excédent de joint.*
- *Les conditions environnementales pour appliquer le joint doivent être sans pluie et avec des températures comprises entre 5 ° C et 30 ° C.*

## 8 LIMPIEZA Y MANTENIMIENTO / CLEANING AND MAINTENANCE / *NETTOYAGE ET MAINTENANCE*



### LIMPIEZA FINAL DE OBRA

Después de la colocación es fundamental realizar una buena limpieza para eliminar residuos de junta. Para esta operación, emplear un detergente de acción ligeramente ácida que no despida humos tóxicos y respete las juntas, el material y el usuario, como FILADETERDEK. En el caso de material colocado con junta epoxi o en base resina, se aconseja realizar la limpieza final de obra con un limpiador específico de residuos epoxi, como FILACR10.

### MANTENIMIENTO

Para un buen mantenimiento del mosaico se aconseja el empleo de un detergente neutro con alto poder limpiador como FILACLEANER. TOGAMA recomienda el uso de FILASTONE PLUS para las series MATT SIXTIES, SILK y **5**ILK, añade un efecto revitalizante en la tonalidad, al tiempo que protege contra los agentes atmosféricos y contra todo tipo de manchas orgánicas.

### FINAL CLEANING OF WORK.

After installation it is essential to perform a good cleaning in order to remove joint residue and in general dirt from the work. For this operation we recommend the use of a mildly acidic detergent that does not emit toxic fumes and respects the joints, the material and the user, such as FILADETERDEK.
In the case of material placed with epoxy gasket or resin base, it is advisable to perform the final cleaning of the work with a specific epoxy waste cleaner, such as FILACR10.

### MAINTENANCE.

For a good maintenance of the mosaic we recommend the use of a neutral detergent with high cleaning power such as FILACLEANER.

We recommend the use of FILASTONE PLUS for the MATT SIXTIES, SILK and 5ILK series, it provides a revitalizing effect on the tone, while protecting against atmospheric agents and against all types of organic stains.

### *NETTOYAGE FINAL DES TRAVAUX.*

*Après la pose, il est indispensable d'effectuer un bon nettoyage pour éliminer les éventuels résidus de joint. Pour cette opération, utilisez un détergent légèrement acide qui n'émet pas de fumées toxiques et respecte les joints, le matériau et l'utilisateur, tel que FILADETERDEK.*
*Dans le cas d'un matériau posé avec un joint à base d'époxy ou de résine, il est conseillé de procéder au nettoyage final de l'ouvrage avec un nettoyant pour résidus époxy spécifique, tel que FILACR10.*

### *ENTRETIEN.*

*Pour un bon entretien de la mosaïque, il est recommandé d'utiliser un détergent neutre à fort pouvoir nettoyant tel que FILACLEANER.*

*TOGAMA recommande l'utilisation de FILASTONE PLUS pour les séries MATT SIXTIES, SILK et 5ILK, il ajoute un effet revitalisant sur le ton, tout en protégeant contre les agents atmosphériques et contre tous types de taches organiques.*



DETERDEK



FILACR10



FILACLEANER



FILASTONE PLUS



**Guantes**
Gloves
*Gants*



**Zapatos seguridad**
Safety shoes
*Chaussures de sécurité*



**Gafas**
Safety glasses
*Lunettes de sécurité*



**Mascarilla**
Mask
*Masque*



**Esponja**
Sponge
*Éponge*



**Mezclador de mortero**
Mortar mixer
*Mélangeur de mortier*



**Llana dentada de 2-3 mm**
Notched trowel of 2-3 mm
*Truelle crantée de 2-3 mm*



**Llana de goma**
Rubber trowel
*Truelle en caoutchouc*



**Tenazas de corte**
Cutting pliers
Pince coupante



**Tenazas de disco**
Disc pliers
Pince à disque

## **CORTE** / CUTTING / *COUPE*



**Sierra portátil para discos de corte.**
Portable saw for cutting discs.
*Scie portable pour disques.*

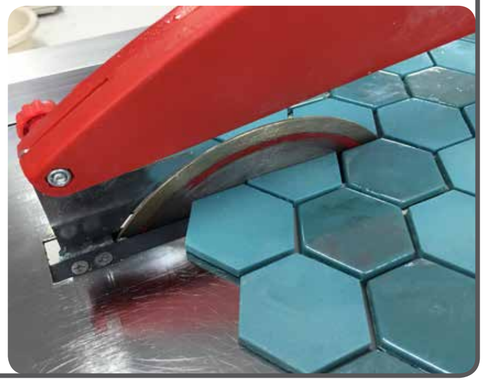
Al colocar el mosaico, es necesario cortarlo para adaptarlo a la geometría del lugar a decorar. En TOGAMA recomendamos **sierra eléctrica portátil para discos de corte** antes que las tenazas puesto que el corte resultante es un corte de mayor calidad y sin filo.
El disco de diamante debe ser del tipo continuo húmedo.

When installing the mosaic, it is necessary to cut it to adapt it to the geometry of the space to decorate. In TOGAMA we recommend portable electric saw for cutting discs intead of the pliers since the resulting cut is a higher quality cutting and without cutting edge.
The diamond disc must be of the continuous wet type.

*Lors de la pose de la mosaïque, il est nécessaire de la découper pour l'adapter à la géométrie de l'endroit à décorer. Chez TOGAMA, nous recommandons l'utilisation d'une scie électrique portable pour les disques de coupe avant les pinces car la coupe obtenue est de meilleure qualité et ne présente pas d'arête de coupe.*
*Le disque de diamant doit être du type humide continu.*




**Disco de diamante para corte de Gres Porcelánico.**
Diamond disc for cutting of Porcelain Stoneware.
*Disque diamant pour la coupe de grès cérame.*



# Pool

TILE OF SPAIN

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Registered Company nº 30350001 UM15

**ISO 9001: 2015**
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TOGAMA
MORE THAN MOSAIC

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