



## ÍNDEX

- ÍNDEX 02
- PACKING 03
- TONAL VARIATION 72
  - ICONOGRAPHY 73
  - RESERVE RIGHT 73
- TECHNICAL CHARACTERISTICS 74
  - ANTI-SLIP 75
- CLEANING AND MAINTENANCE 77
  - PLACEMENT TIPS 78

#### - 25X25CM -

al hambra a7ui	26-27
AL HAMBRA NEGRO	28-29
AL HAMBRA ROJO	30-31
BARCELONA BLANCO	32-33
BARCELONA CLASSIC	34-35
BARCELONA GRECO	36-37
BARCELONA NIGHT	38-39
BARCELONA STAR	40-41
CHEZ COCO STAR	42-43
CHEZ COCO SUN	44-45
CORDOBA MIX	46-47
CORDOBA TORRES	48-49
LAREDO BANDA GRIS	50-51
MALLORCA MARINA	52-53
MALLORCA TRENC	54-55
OCTO ELEMENT BLANCO	56-57
PAISLEY AMBER	58-59
PAISLEY HAWA	60-61
PAISLEY LAXMI	62-63
PAISLEY MYSORE	64-65
PARIS RIVOLI	66-67
VALENCIA LONJA	68-69
VALENCIA MORNING	70-71
VALENCIA NIGHT	72-73

#### - 80X80 CM -

- ARDENZA BRILO 04-05 ARDENZA MATE 04-05 BONN ACERO 06-07 BONN GRIS 06-07 08-09 COTTO ACERO COTTO CUERO 10-11 HAT BLANCO 12-13 LONDON ACERO 14-15 QUEBEC BLANCO 16-17
  - REGINA GRIS | 18-19

#### - 59.6X59,6 CM -

ARDENZA BRILLO	20-21
ARDENZA MATE	20-21
LIVORNO BEIGE	22-23
LIVORNO GRIS	22-23
REDSTONE GRIS	24-25
REDSTONE ACERO	24-25

## PACKING

SIZE	PZS/BOX	M2/BOX	KG/BOX	PALLET	BOX/PALLET	M2/PALLET	KG/PALLET
80x80	2	1,28	30,21	93X113	40	51,20	1203
	2			EUROPALLET 80X120	35	44,80	1062
59.6x59.6	4	1 40	.42 30,69	95X95	24	34,08	751
	4	1,42		EUROPALLET 80X120	24	34,08	759
25x25	16	1,00	18,80	EUROPALLET 80X120	44,00	44,00	828
OCTO 25x25	16	0,96	17,34	EUROPALLET 80X120	44	42,24	789
5x5	230	-	-	-	-	-	-













A091



Ardenza Mate 80x80 cm



| Bonn Acero 80x80 cm |





## 80x80cm



Bonn Gris 80x80 cm

A091



Bonn Acero 80x80 cm











Cotto Acero 80x80 cm











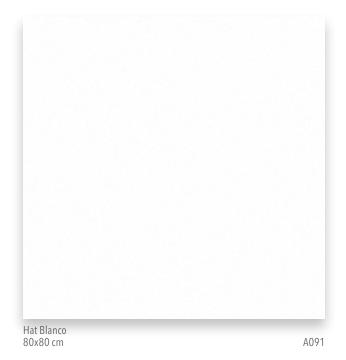
Cotto Cuero 80x80 cm







## 80x80cm

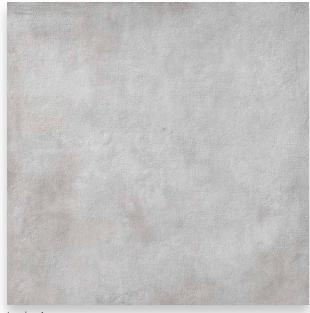


































| Ardenza Mate 59,6x59,6 cm |





A051

## | 59,6 x 59,6cm |





Ardenza Mate 59,6x59,6 cm

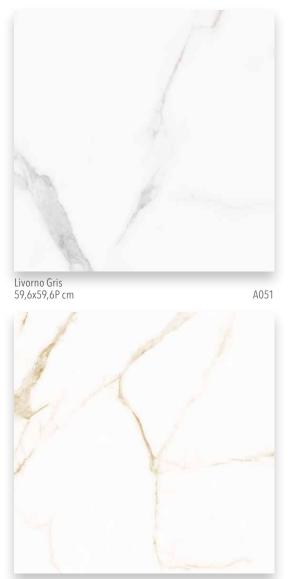
21





# LIVORNO

## |59,6x59,6cm|



Livorno Beige 59,6x59,6P cm





# REDSTONE

#### |59,6x59,6cm|



Redstone Gris 59,6x59,6P cm



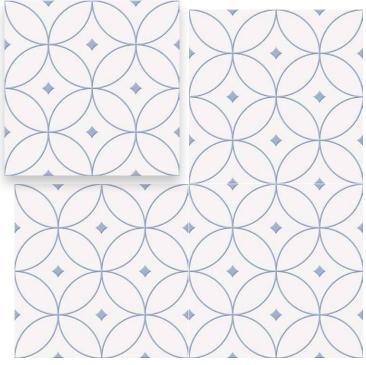
Redstone Acero 59,6x59,6P cm







25x25cm



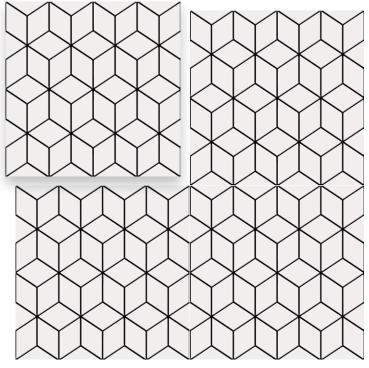
Alhambra Azul 25x25P cm



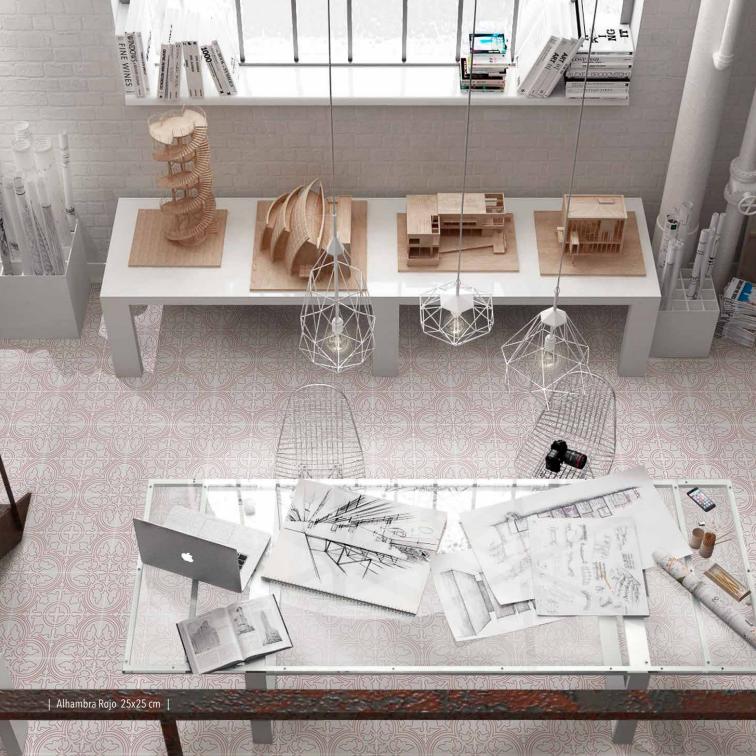




25x25cm

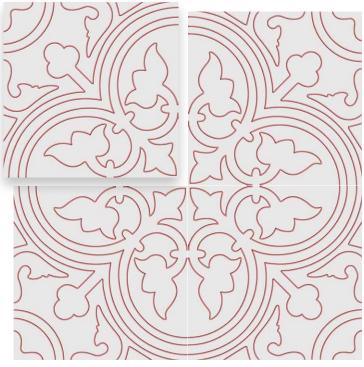


Alhambra Negro 25x25P cm









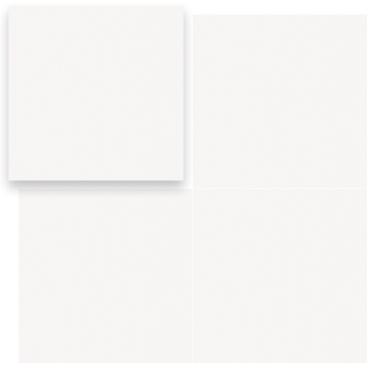
Alhambra Rojo 25x25P cm











Barcelona Arch 25x25 cm









Barcelona Classic 25x25 cm

Barcelona Greco 25x25 cm

10

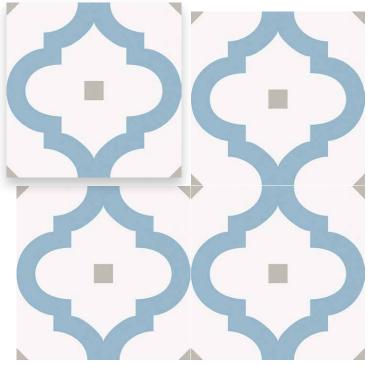
ALC: N

TITLE

2 Section







Barcelona Greco 25x25 cm

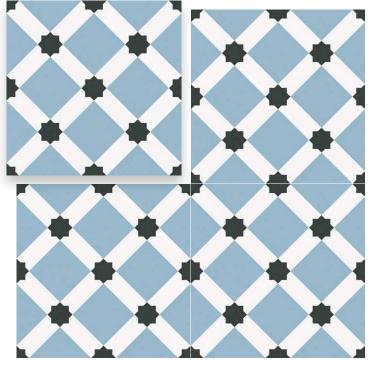
Barcelona Night 25x25 cm

 $\checkmark$ 

4

1

### BARCELONA [25x25cm]



Barcelona Night 25x25 cm









Chez Coco Star 25x25 cm









Chez Coco Sun 25x25 cm







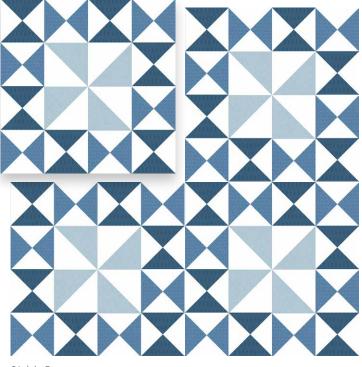


Córdoba Mix 25x25 cm (19 different designs)









Córdoba Torres 25x25 cm







### 25x25cm 5x5 cm



Taco Element Gris 5x5P cm P005



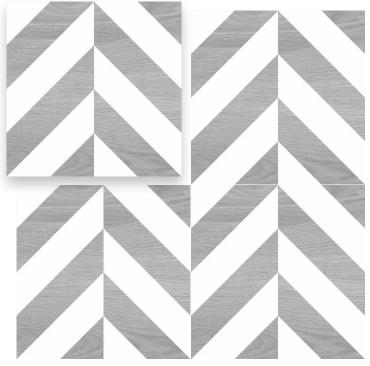
Taco Element Negro 5x5P cm P005







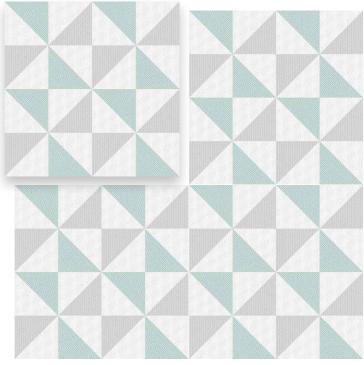




Laredo Banda Gris 25x25 cm





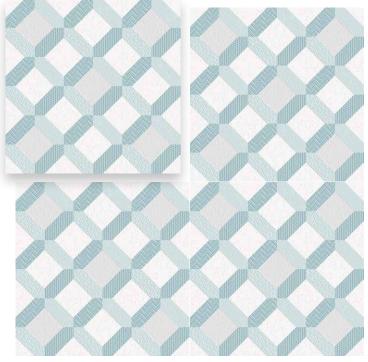


Mallorca Marina 25x25 cm









Mallorca Trenc 25x25 cm

| Paisley Amber 25x25 cm |







Paisley Amber 25x25 cm (5 different designs)









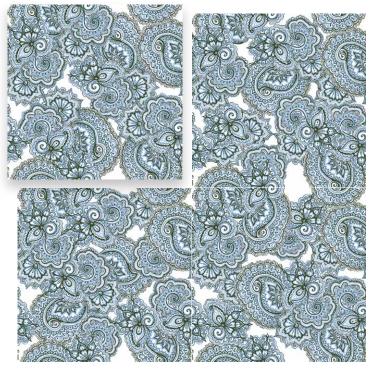
Paisley Hawa 25x25 cm (5 different designs)











Paisley Laxmi 25x25 cm (5 different designs)

| Paisley Mysore 25x25 cm









Paisley Mysore 2 25x25 cm (5 different designs)









París Rivoli 25x25 cm







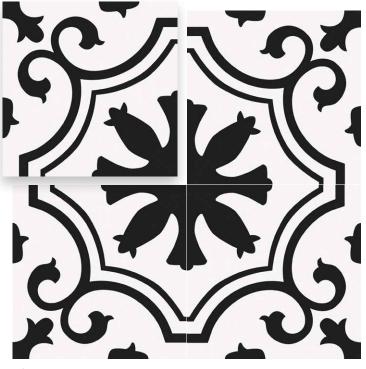


Valencia Lonja 25x25 cm







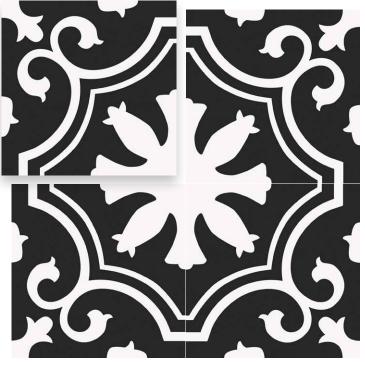


Valencia Morning 25x25 cm



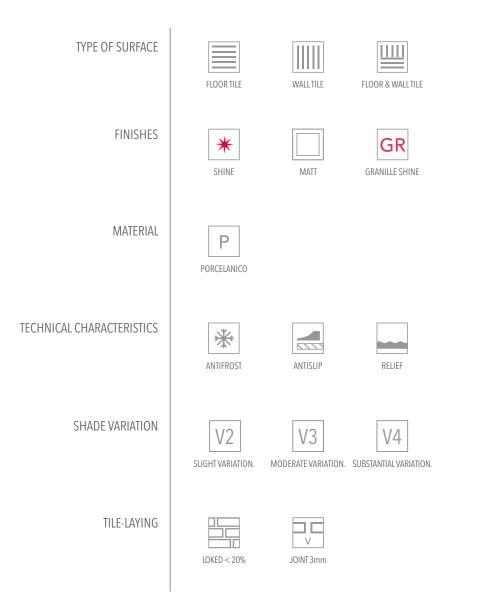






Vlanecia Night 25x25 cm

- ICONOGRAPHY -



# - TONAL VARIATION -

Tiles may vary in color, texture, or appearance according to the manufacture's design for that particular tile series of produce line. The following aesthetic class designations have been provided in the Table, so that manufacturer may communicate the aesthetic characteristics of a particular tile product. Any questions or concerns about your tile selection should be clarified prior to installation.

#### V2-SLIGHT VARIATION.

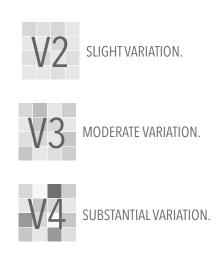
Clearly distinguishable differences in texture and/or pattem with similar colors.

#### V3-MODERATE VARIATION.

While the colors and/or texture present on a single piece of tile will be indicative of the colors and/or texture to be expected on the other tiles, the amount od color and/or texture on each piece may vary significantly. It is recomended that the range be viewd before selection.

#### V4-SUBSTANTIAL VARIATION

Random color and/or texture differences from tile, so that one tile may have totally different color and/or texture from that one other tiles. Thus, the final installation will be unique. It is recommended that range be viewed before selection.



## - RESERVE RIGHT -

Keros operates a policy of continuous development and reserves the right to make changes to its products, colours, engineering specifications, packaging and codes without prior notice.

Keros has taken every effort to ensure that the information contained in the catalogue is correct at the time of publication. Due to the limitations of the printing process, the colours reproduced may vary slightly from the original product. Keros advises that this catalogue is only valid fro information purposes and therefore does not accept responsability for any possible printing errors.

Please, check shade, caliber and class before placing. Keros will not take responsability after the material is placed.

# - TECHNICAL CHARACTERISTICS -

							DESLIZAMIENTO	
SERIE	SIZE	COLOR	PEI	MOHS	RES. MANCHAS	RES. ATAQ. QUIMICO	PÉNDULO	RAMPA
ALHAMBRA	25x25	-	IV	6	5	GA-GLA-GHA	-	-
ARDENZA	80x80/59,6x59,6	-	IV	6	5	GA-GLA-GHA	-	-
BARCELONA	25x25	-	IV	6	5	GA-GLA-GHA	C2	R10
BETON	59,6x59,6	-	IV	7	5	GA-GLA-GHA	-	-
BONN	80x80	Gris	IV	6	5	GA-GLA-GHA	-	-
BONN	80x80	Acero		6	5	GA-GLA-GHA	-	-
CHEZ COCO	25x25	-		4	5	GA-GLA-GHA	-	-
CÓRDOBA	25x25	-	IV	6	5	GA-GLA-GHA	-	-
COTTO	80x80	Acero, Cuero		6	5	GA-GLA-GHA	-	-
HAT	80x80	-	IV	5	5	GA-GLA-GHA	-	-
LAREDO	25x25	-	11	5	5	GA-GLA-GHA	-	-
LIVORNO	59,6x59,6	-	II	4	5	GA-GLA-GHA	-	-
LONDON	80x80	-	IV	6	5	GA-GLA-GHA	-	-
MALLORCA	25x25	-	IV	6	5	GA-GLA-GHA	-	-
PAISLEY	25x25	-	IV	6	5	GA-GLA-GHA	-	-
PARÍS	25x25	-	IV	6	5	GA-GLA-GHA	-	-
REDSTONE	59,6x59,6	Acero, Crema	7		5	GA-GLA-GHA	-	-
REDSTONE	59,6x59,6	Beige, Gris	7	IV	5	GA-GLA-GHA	-	-
VALENCIA	25x25	-	IV	6	5	GA-GLA-GHA	C2	R10

### - ANTI-SLIP -

The aim here is to provide better safety areas of pedestrian traffic, where the humidity conditions and slopes are greater than normal. This series rates higher than the test results recommended by Regulation UNE-ENV 12633:2003, DIN-51130, DIN-51097 and/or BS 7976-2. For more information on this, contact our Technical Department.

CTE	TECHNICAL BUILDING CODE, SECTION DB-SUA	1 VERSION DECEMBER 2014
CLASS	Rd DISPLACEMENT RESISTANCE	
1	15 < Rd ≤ 35	Interior areas that are dry with a grade of <6%.
2	35 < Rd ≤ 45	Interior areas that are dry with a grade of >6% Interior wet areas, covered terraces, showers, bathroom floor, kitchens, etc.
3	> 45	Wet/greasy/lubricated environments. Interior wet areas with a grade of >6%. Exterior areas, swimming pools.

DIN 51130	INCLINED PLANE, WEARING SHOES			
Classificación joint adjusted average of critical angle for slip classification.				
Slip Class	Adherence	Slope angle		
R9	Normal	De 6º a10º		
R10	Medium	> 10° a 19°		
R11	High	> 19° a 27°		
R12	Strong	> 27° a 35°		
R13	Very strong	>35°		

#### RATING REQUIRED FOR FLOORING DEPENDING ON ITS LOCATION

LOCATION AND CHARACTERISTICS OF THE FLOOR	CLASS
DRY INDOOR AREAS Surfaces with a slope of less than 6% Surfaces with a slope equal to or higher than 6% and stairs	1 2
INDOOR AREAS SUBJECT TO MOISTURE, SUCH AS ENTRANCES TO BUILDINGS FROM OUTDOOR AREAS (1), COVERED TERRACES AND BALCONIES, CHANGING ROOMS, BATHROOMS, CLOAKROOMS, KITCHENS ETC: Surfaces with a slope of less than 6% Surfaces with a slope equal to or higher than 6% and stairs	23
OUTDOOR AREAS.SWIMMING POOLS.SHOWERS (2)	3

Except for accesses that lead directly to areas of restricted us
In places where users are expected to go barefoot and in the bottom of swimming pools in areas with a depth of less than 1.50 m. This rating is maintained throughout the useful life of the flooring.

#### SLIP RISK ASSESSMENT TABLE

Remises work areas	APPROXIMATE VALUE		
		Wet area(1)	R10
Entries and access areas including hotels, offices, public buildings, shopping centres, shops, schools and kindergartens, common areas of public buildings, internal lift lobbiesse Dry area		' Transitional area	R9
		R8 <sup>(2)</sup>	
Internal ramps, slopes (greater than 1 in 20) - Dry	R10		
Total facilities in offices, hotels, shopping centres			R10
Fast food outlets, buffet food servery areas, food court and fast food dining areas in shopping centres			R10
Undercover concourse areas of sports stadium			R10
Private, publicly inaccessible balconies			R10
Self catering areas or kitchenettes	R10		
Shop and supermarket fresh fruit and vegetable areas	R10		
Supermarket aisles except fresh fruit areas			R9
Residential garages			R10
Residential kitchens			R9
Residential bathrooms, ensuites, toilets and laundries	R9 o A		
Untelle hearitele and and our facilities	Wards and corridors		R9
Hotels, hospitals and aged care facilities	Ensuites		R10 o A
Accessible internal stain resince. Hendraile present	Dry		R10
Accessible internal stair nosings – Handrails present	Wet		R11 o B
External colonnade, walkways, pedestrian crossings, balconies, verandas, carports, driveways, court yards and roof decks, public car parks, school yards, external sales areas (e.g. markets).			R11
Private paths, primary access to premises, external stair nosings			R11
Serving areas behind bars in public hotels and clubs, cold stores, freezers			R11
External ramps (including sloping driveways, footpaths, etc.); slope of 1 in	20 to 1 in 14		R11
External ramps (including sloping driveways, footpaths, etc.); slope steepe	er than 1 in 14		R11
Loading docks			R11
Commercial kitchens			R11
Communal changing rooms			А
Swimming pool surrounds and communal shower rooms	В		
Swimming pool ramps and stairs leading into water	С		

### GUV-I 8527 INCLINED PLANE, WEARING SHOES

#### CLASSIFICATION OF THE RESULTS OF THE TEST OF THE WET RAMP, OF WALKING WITHOUT FOOT

Group	Minimum slope angle	
А	≥ 12°	-Walkways for barefoot use (mainly dry) -Communal and individual changing rooms and locker rooms -Swimming pool floors in non-swimmer areas, if the water in the entire area (of a swimming pool) is more than 80 cm deep
В	≥ 18°	-Walkways for barefoot use not classified in group A -Shower areas -Swimming pool surrounds -In the surroundings of disinfecting spray facilities -Swimming pool floors in non-swimmer areas, where the water is less than 80cm deep -Non-swimmer areas in wave pools -Elevating platforms -Swimming pools for young children -Ladders leading into water -Stairs leading into water -Stairs leading into water with a maximum width of 1m and handrails on both sides. -Ladders and stairs outside the swimming pool area -Steps and benches for sitting and resting
С	≥ 24°	-Stairs leading into water, not classified in group B -Walk-through pools -Inclined swimming pool edges.

# - CLEANING AND MAINTENANCE -

#### TECHNICAL RECOMMENDATIONS

In order to solve any question regarding maintenance and/or Cleaning of the goods and as a strongly recommended guidelines, so it may serve as reference to our commercial labour and also our customers would be satisfied.

It will be controlled by the customer that the usage of goods will be the right one. Before any doubt, the installation will be stopped and the relative questions or claims must be placed, it is always better learn about first.

A simple advice may prevent from making mistakes and will help to choose better.

#### CLEANING AND MAINTENANCE

#### CLEANING AFTER LAYING:

Is it crucial to do a good cleaning after the tile laying with the objective to eliminate the joints residues and in general all the building dirt. For this activity we recommend the use of an action detergent with light acid that does not produce toxic fumes and respects the joints, the material and the user, like Fila Deterdek. In the case of epoxy joint or in resin base, the final cleaning is advisable to be made with a specific cleaner called Fila CR10 for epoxy residues. REGULAR MAINTENANCE:

It is advisable to use a neutral detergent with high cleaning power like Fila Cleaner for a floor tile maintenance. In the cases of intensive and encrusted accumulateddirt it is recommendable to check the table here below to find the appropriate product FILA for each situation.

TYPE OF DIRTY	PRODUCT TO USE	
Cement - Calcar - Metal tracer - Rust	DETERDEK	
Epoxy residues	FILA CR10	
Greasy - Drinks - Food - Tire marks - Colours - Marker - Etc.	FILA PS/87	(
Grafitis	FILA NOPAINT STAR	
Wax candel - Bitument - Adhesive tape residues	FILASOLV	



## - PLACEMENT TIPS -

#### 1.BEFORE FIXING

Upon receiving the product, the product should be checked whether it complies to the order, both in quantity and in quality. To do this, we should verify that the box registration corresponds to the delivery note of the goods.

#### 2.ADJUSTMENT SETTINGS

Once the verification is done, we should proceed to the preparation of the surface on which the chosen product will be installed.

In order to achieve good adhesion to the laying surface the initial and firm surface should be rediscovered and a thorough cleaning is required, since the dust and the material residues will determine the proper adhesion of the support with the facing.

The tail mortars see their benefits reduced from 5 mm thickness, the reason being is that the uneven facing cannot be corrected with additional adhesive, so it is essential to have perfectly flat surfaces.

For larger deviations of 10 mm it would be advisable to apply a leveling layer to correct them.

In laying floorsoutdoors, the slopes should be taken into consideration for the water removal.

Before placing the ceramic product, in the case of pavement, it is recommendable to put on the leveled surface some tiles to see the produced effect. Modular placements should be informed at the time of the order so that to provide a suitable tone and a caliber according to the chosen method of tile placing.

#### <u>3.FIXING</u>

Depending on the nature of the ceramic products (porcelain, stoneware or tile) a special type of placement will be used accordingly.

Placing in thin layer, it is the latest development technique, suitable for any type of tile and compatible with any support.

Placement is usually done on a previously evened facing layer, whether on plastered walls or mortar bases in floors.

There are suitable adhesives for each type of support according to the UNE EN 12004.

The cementitousadhesives or adhesive mortars, adhesives and reaction resin adhesives are used in thin layer, with the advantage of higher adjustment time, greater deformability in the support and better adhesion.

You should keep in mind that the support base is usually a continuous surface subjected to contraction and expansions caused by temperature changes, structural movement or retraction of the cement itself. Therefore, a perfect execution of the joints ensures that these natural movements of the support base would not move to the tiled surface.

#### 4.STRUCTURAL JOINTS

The sizing of the structural joints must be detailed fully in the building project, and should be fixed by the architect or specialist. Structural joints between tiles must reach the support, and its width should be at least that of the structural joint stand. Structural joints are finished filling them with permanently elastic materials.

#### **5.PERIMETER JOINTS**

Their objective is to insulate the floor tiles, along with the corresponding adhesive layer, from other covered or paved surfaces such as wall-floor connections or meeting points with other construction elements such as pillars, windows or doors.

Its mission is to prevent both the ceramic material as well as the adhesive from getting into contact with the mentioned elements, in order to prevent the accumulation of tensions.

The joints between walls and floors are always needed for surfaces bigger than7 m2. Sealing width of 5 to 10 mm is recommended, which is hidden by a baseboard, or cladding.

The perimeter joints must be properly done and function as such, meaning, they must be free of building materials residues and reach the base support, which must be taken into consideration before placing the leveling layer otherwise it would be impossible to execute it correctly.

Improper performance or omission of perimeter joints is one of the most common causes of lifted tiles.

#### 6.EXPANSIÓN JOINTS

They are intended to allow the differential deformations caused by thermal variations among the tiles, the adhesive layer and the support.

The minimum width is 5 mm and must be properly implemented and function as such, meaning they must be flexible, waterproof, well bonded and should be able to reach the support.

#### 7.INSTALLATION JOINTS

Installation joints play an important aesthetic function, enhance the inherent beauty of the ceramic tiles and compensate for their small size variations.

Repeated regularly involve mutual spacing between the individual tiles, recommending the use of spreaders and wedges for a perfect alignment of the tiles and the constancy of the joints thickness

They contribute to absorb the deformations produced by the support and moderate the tension generated when subjected to load. If the pieces are laid out without any joints, the accumulated tensions can produce tiles lifting, since there is no moderating action of the boards.

They are necessary in particular, when rectangular tiles are placed in a brick pattern or herring bone layout, as they minimize the eyebrows generated by this placement technique. There is a wide variety of grouts in the market, allowing adaptation to different types of tiles and environments. As a general rule J2 type materials are recommended according to specifications of the European standard EN12004.

Placement without any joints is inadvisable from any technical point of view due to the risks to produce pathological states in the coatings.

As a general rule, the recommended placement is with a joint from 3 to 4 mm, and in no case should be less than 2.0 mm.

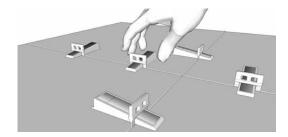
The brick pattern or theherring bonepattern layout requires a minimum joint width of 5.0 mm. between the tiles.

For jointing porcelain tiles it is advisable not to choose products colored with "black smoke" (micronized coal), because they could prevent the coated surface from cleaning, especially when it comes to models of light colors and polished products.

#### 8.LEVELLING SYSTEM

To achieve a complete flat laying on ceramic floor tiles, we advise the use of auto leveling systems. This system, besides leveling the adjacent tiles, reduces the time of ceramic tile setting as well.

It is specially recommended for wall tiles and floor tiles installation with a minimum joint, as well as for big size porcelain tiles and rectified wall tiles. No claims of tiles already installed will be accepted if the installation recommendations have not been taken into consideration.







KEROS POLSKA SPÓŁKA Z OGRANICZONĄ ul. M. Michałowicza 12 43-300 Bielsko-Biała, Polonia

> Tel - 787 066 787 kerospolska@wp.pl mail@keros.com

