

# Porcelain Paving

2024



**RAK**  
CERAMICS



Floor: fashion stone light grey

## Refining Outdoor Living with Porcelain

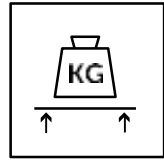
Give your outdoor spaces a new look. Sustainable and adaptable, porcelain tiles are the ideal choice to design or revamp gardens, patios, terraces, driveways or pool areas. The different installation possibilities allows the material to blend in with its surrounding landscape. Imagine your outdoor space.



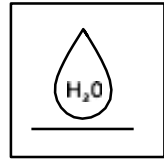
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# Technical Plus Factors



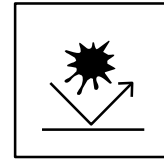
Bending and breaking strength resistant



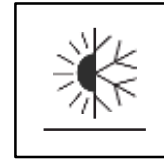
Water absorption resistant



Frost and fire resistant



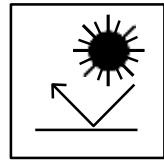
Stain resistant



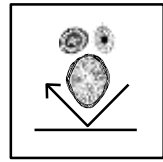
Thermal shock resistant



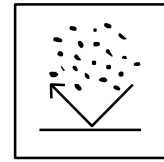
Slip resistance r11 - c(a+b+c)



No discolouring with exposure to light



Moulds, moss and verdigris resistant



Salt resistant



# Applications



Dry laying on grass



Dry laying on gravel



Dry laying on sand



Screed with adhesive



Laying as raised paving

The extra thick tiles are ideal for installation on any outdoor areas such as :



Mall and offices



House exterior garden



Terrace



Swimming pools

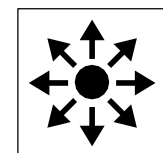


Cafés / Restaurants



Public gardens

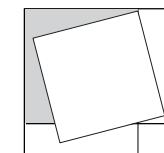
# Practical Plus Factors



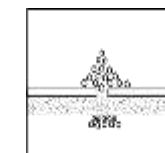
Versatile



Easy to install



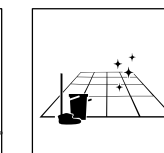
Removable, inspectable and releasable



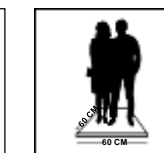
Effective drainage



Matching indoor and outdoor pavings



Need no treatment and is easy to clean

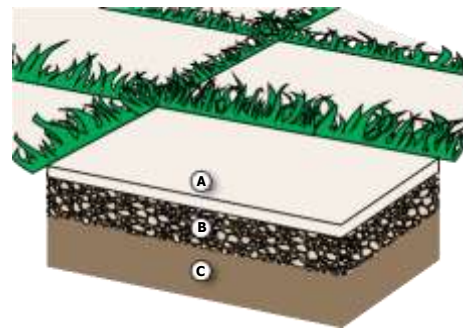
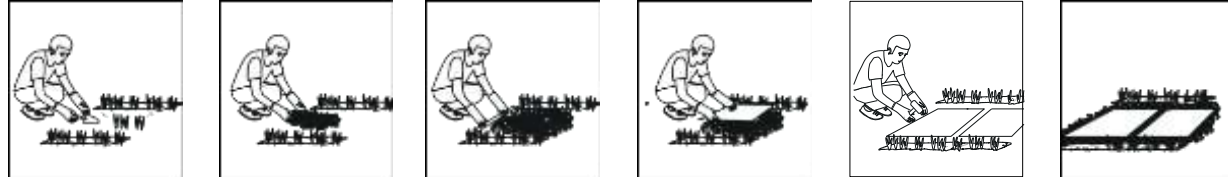


Paths convenient for more than one person

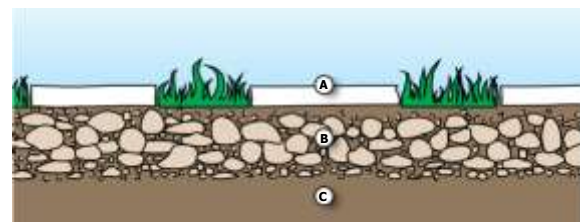
# Direct installation on grass

Ideal for: Gardens, gazebos and walkways

- 1- Remove the soil below the area where the sheet will be laid to a thickness of about 5-6 cm
- 2- Apply gravel to a thickness of about 3-4 cm and compact the foundation
- 3- Rest the sheets - with at least 1 cm of gap - on the gravel bed and use a rubber hammer to eliminate any unevenness



- A. Tile
- B. Fine gravel or sandy laying bed
- C. Ground



## LAYING DIRECTLY ON GRASS

Laying with closed joints



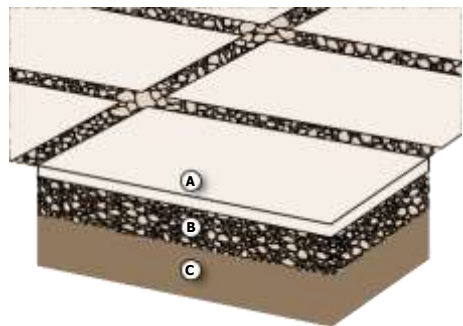
Laying with open joints



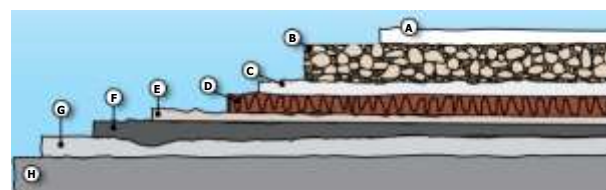
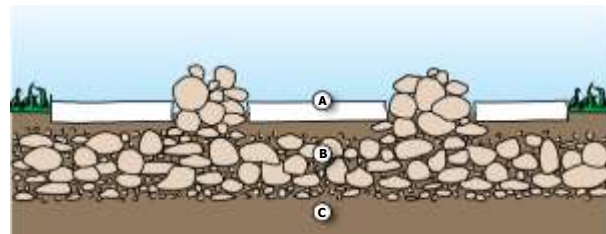
# Installation on gravel and sand

Ideal for: Gardens, patios, courtyards, pedestrian walkways, beach resorts and perimeter areas in pools

- 1 Compact the level of the resting layer (sand or gravel)
- 2 Lay the sheet on the bed of gravel or sand, maintaining a minimum gap of 1 cm or wider
- 3- Use a rubber hammer to eliminate any unevenness
- 4- Fill in the joints between the sheets with gravel or sand to provide greater stability to the surface



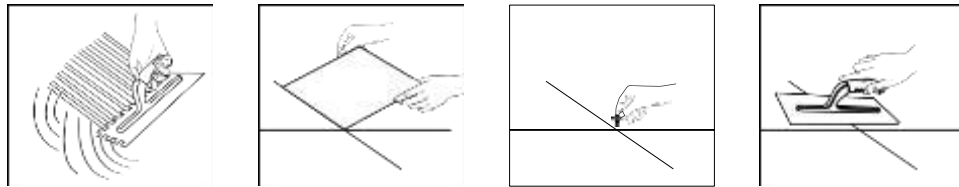
- A. Tile
- B. Fine gravel or sandy laying bed
- C. Concrete screed (may include electro welded mesh)
- D. Reinforcement layer
- E. Concrete screed
- F. Loose stone foundation (gravel)
- G. Soil



# Installation on screed with adhesive

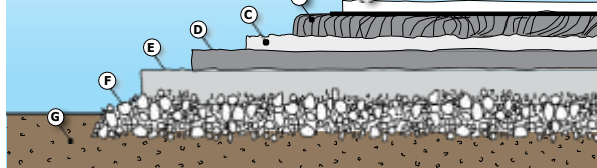
Ideal for: Terraces, indoor areas and high traffic areas

- 1- Create a screed to the proper standard, which may or may not be waterproofed depending on requirement
- 2- Apply the adhesive evenly (apply to both the screed and the slab if heavy loads are expected)
- 3- Lay the slabs using cross spacers to create suitable joints (for unrectified products, a joint of at least 5 mm is required)
- 4- Create expansion and separation joints suitable for the location and the size of the area to be covered



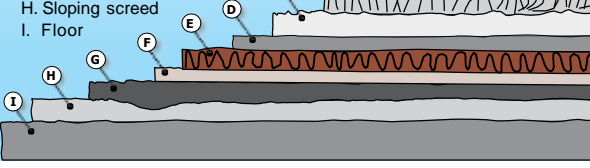
Examples of laying on a soil with adhesive

- A. Tile
- B. Adhesive
- C. Concrete screed (may include electro welded mesh)
- D. Reinforcement layer
- E. Concrete screed
- F. Loose stone foundation (gravel)
- G. Soil



Example of laying on a cement with adhesive

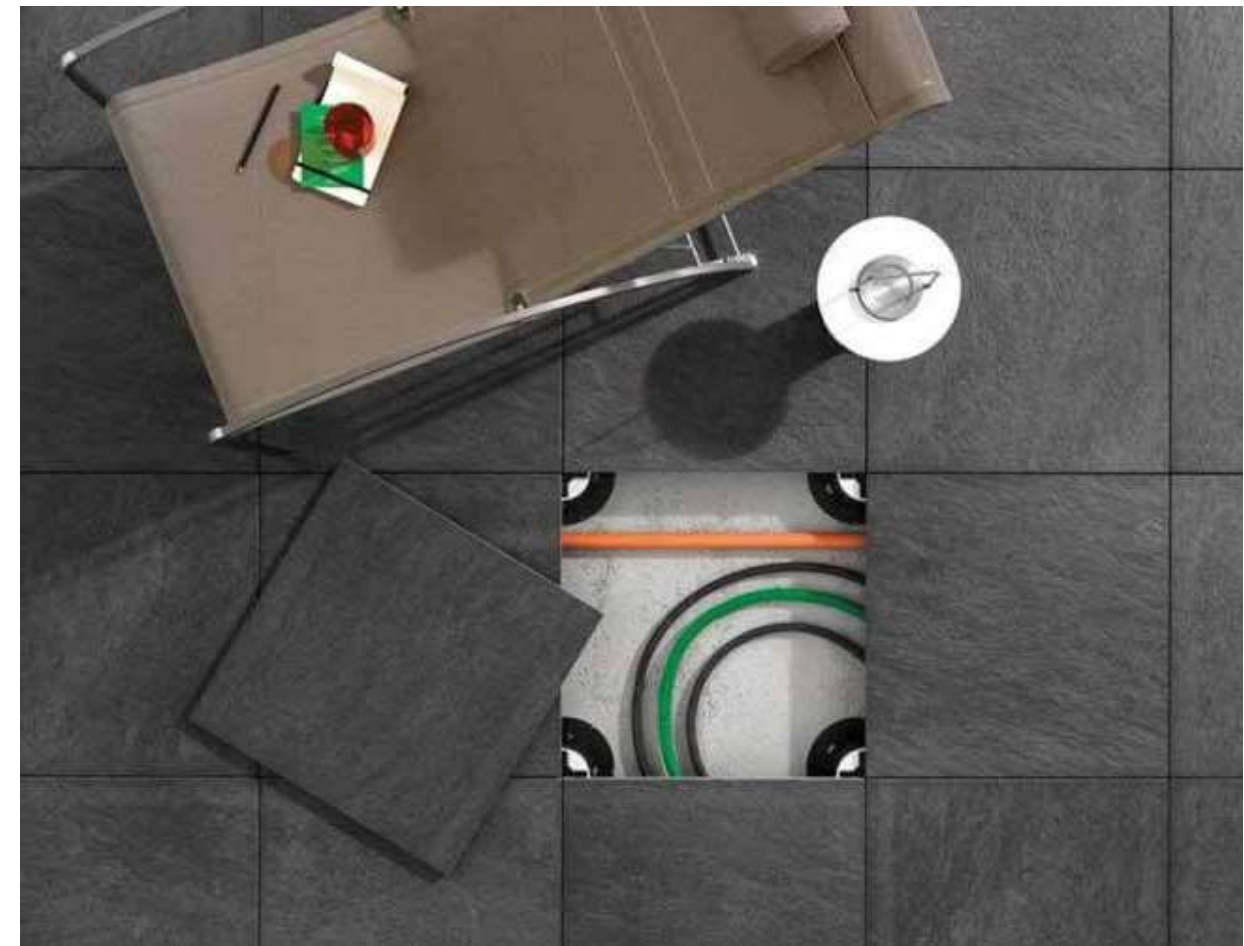
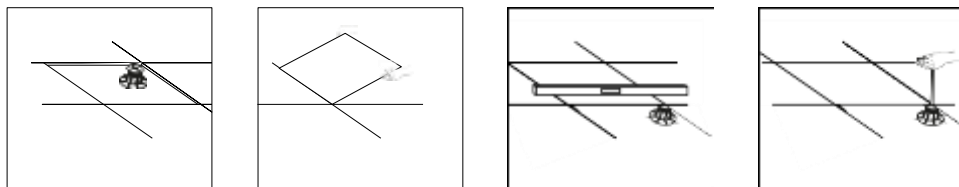
- A. Tile
- B. Adhesive
- C. Concrete screed
- D. Separation layer
- E. Thermal insulation element
- F. Vapour barrier
- G. Waterproof layer
- H. Sloping screed
- I. Floor



# Installation on fixed or adjustable feet

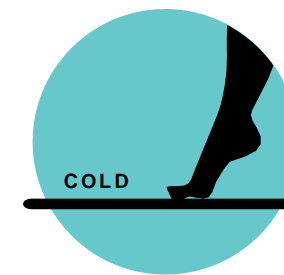
Ideal for: Offices, terrace, places to hide pipes or cables

- 1- Check that the substrate is flat, firm, rigid and able to support the weight of the paving without deformation
- 2- Choose suitable pedestals, polypropylene feet and other system are available in the market
- 3- Give the surface of the paving a suitable gradient to ensure effective storm water drainage
- 4- Follow the instruction of the chosen system



# KLIMA

Klima is a new generation ceramic that, thanks to special materials, is able to absorb and repel heat according to individual needs. Suitable for both indoor and outdoor applications, for flooring or external walls, to achieve maximum comfort with minimum energy impact.



## OUTDOOR USE

When installed on outdoor flooring, Klima repels the heat from sunlight, resisting high temperatures. Even with significant sun exposure, the surface is not burning hot and floor remains cool and pleasant to walk on with bare feet.



## INDOOR USE

When applied on indoor flooring, Klima retains room heat and releases it over the entire surface, producing a warmer feel than a standard floor. Ideal for surfaces that provide a wood-like effect, imparting a warmth and a comfort to be experienced.



## ENERGY SAVING

On external ventilated façades, Klima helps limit heat dispersion while maintaining a steady indoor temperature. An innovative solution that helps reduce room energy demands.

# Carmo Stone



carmo stone grey

carmo stone anthracite

carmo stone ivory



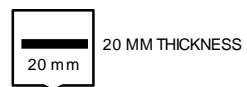
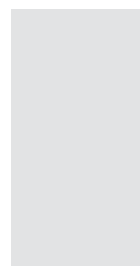
carmo stone grey variations 60x120

carmo stone anthracite variations 60x120

carmo stone ivory variations 60x120

## Sizes

60x120 cm



The Carmo Stone range is also available in 9mm indoor options.

## Finishes



R11



Floor: carmo stone anthracite



### Name

carmo stone grey  
carmo stone anthracite  
carmo stone ivory

### Code R11

A12GCMSO-GRY.Y6X7R  
A12GCMSO-ANT.Y6X7R  
A12GCMSO-IVO.Y6X7R

### Size(CM)

60x120 (R11)  
60x120 (R11)  
60x120 (R11)

# Fashion Stone Outdoor



fashion stone light grey



fashion stone grey



fashion stone black



fashion stone ivory



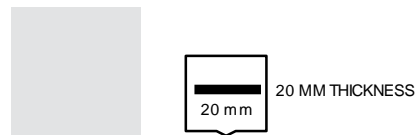
fashion stone beige



fashion stone clay

## Sizes

60x60 cm



The Fashion Stone range is also available in 9mm indoor options.

## Finishes



R11



## Name

Name	Code R11	Size(CM)
fashion stone light grey	Ao6GFNSE-LIG.MYX7R	60x60 (R11)
fashion stone grey	Ao6GFNSE-GRY.MYX7R	60x60 (R11)
fashion stone black	Ao6GFNSE-BLK.MYX7R	60x60 (R11)
fashion stone ivory	Ao6GFNSE-IVO.MYX7R	60x60 (R11)
fashion stone beige	Ao6GFNSE-BEE.MYX7R	60x60 (R11)
fashion stone clay	Ao6GFNSE-CLA.MYX7R	60x60 (R11)



Floor: fashion stone outdoor clay

STONE

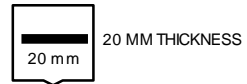
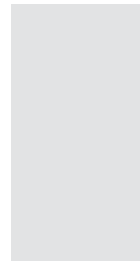
# Gold Calacatta



gold calacatta white

## Sizes

60x120 cm



The Gold Calacatta range is also available in 9mm indoor options.




## Finishes



R11



**Name**  
gold calacatta white

**Code** R11     
A12GGDCL-WHE.YoX7R

**Size(CM)**  
60x120 (R11)



Floor: gold calacatta white

MARBLE

MARBLE

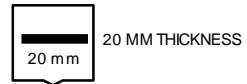
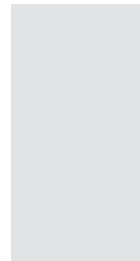
# Grey Calacatta



grey calacatta white

## Sizes

60x120 cm



The Grey Calacatta range is also available in 9mm indoor options.





## Finishes



R11



**Name**  
grey calacatta white

**Code** R11      
A12GGRCL-WHE.YoX7R

**Size(CM)**  
60x120 (R11)

Grey Calacatta



Floor: grey calacatta white

MARBLE

# Maremma



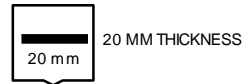
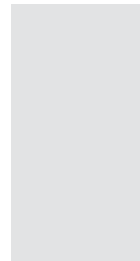
maremma sand

maremma grey

maremma copper

## Sizes

60x120 cm



The Maremma range is also available in 9mm indoor options.

## Finishes



R11



### Name

maremma sand  
maremma grey  
maremma copper

### Code R11

A12GMRMA-SND.Y6X7R  
A12GMRMA-GRY.Y6X7R  
A12GMRMA-COP.Y6X7R

### Size(CM)

60x120 (R11)  
60x120 (R11)  
60x120 (R11)



Floor: maremma grey

STONE

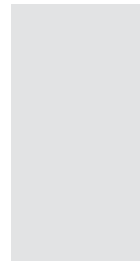
# RAK Stone 2.0



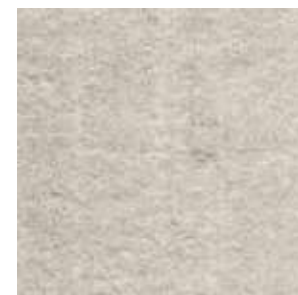
RAK stone 2.0 grey

## Sizes

60x120 cm



## Finishes



R11



### Name

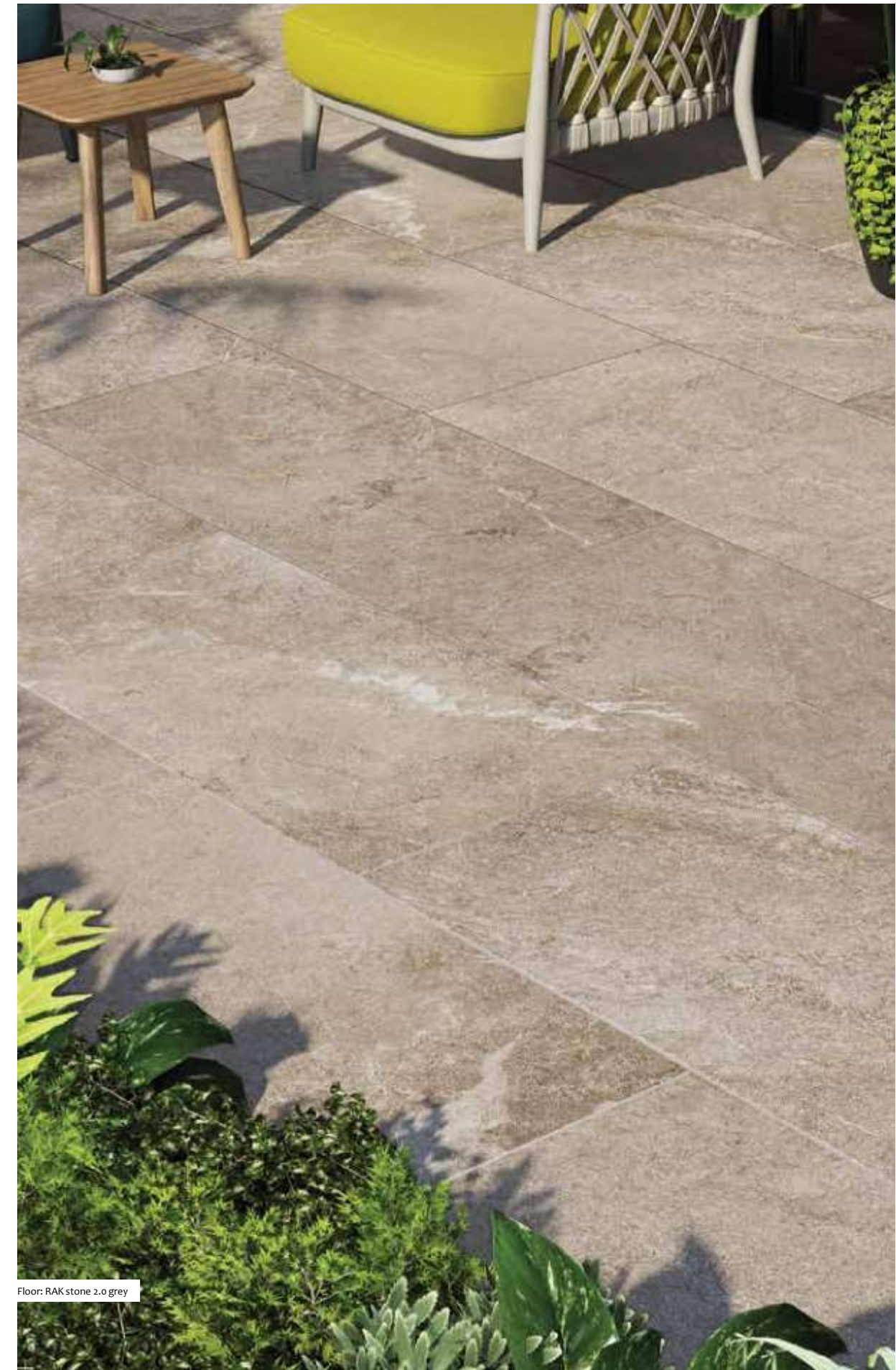
RAK stone 2.0 grey

### Code

R11 A12GRTOE-GRY.Y6X7R

### Size(CM)

60x120 (R11)



Floor: RAK stone 2.0 grey

STONE

# Stone Lagoon



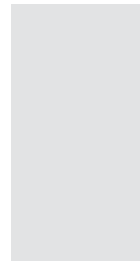
stone lagoon grey



stone lagoon sand

## Sizes

60x120 cm



20 mm THICKNESS

## Finishes



R11



### Name

stone lagoon grey  
stone lagoon sand

### Code R11

A12GSNOG-GRY.Y6X7R  
A12GSNOG-SND.Y6X7R

### Size(CM)

60x120 (R11)  
60x120 (R11)



Floor: stone lagoon grey



# Surface 2.0 Outdoor



surface 2.0 outdoor cool grey



surface 2.0 outdoor mid grey



surface 2.0 outdoor ash



surface 2.0 outdoor sand

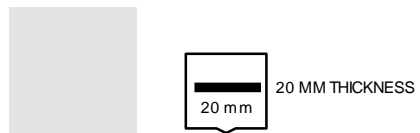


surface 2.0 outdoor night

Sizes

Finishes

60x60 cm



The Surface 2.0 range is also available in 9mm indoor options.



R11



Name

Code R11



Size(CM)

surface 2.0 outdoor cool grey	Ao6GZSUR-CGY.MoT5R	60x60 (R11)
surface 2.0 outdoor mid grey	Ao6GZSUR-MGY.MoT5R	60x60 (R11)
surface 2.0 outdoor ash	Ao6GZSUR-ASo.MoT5R	60x60 (R11)
surface 2.0 outdoor sand	Ao6GZSUR-SNo.MoT5R	60x60 (R11)
surface 2.0 outdoor night	Ao6GZSUR-NTo.MoT5R	60x60 (R11)



CONCRETE

## Porcelain Tiles (Bla - GL):

Porcelain tiles are manufactured using pure, selectively imported raw materials mixed using the most advanced extraction and sorting techniques; they are obtained with a production process similar to that of single-fired tiles.

The resulting product is a top-quality porcelain tile, obtained by raw materials wet grinding, followed by partial drying by spraying, silo storage to allow homogenization of properties, and pressing with highly efficient hydraulic presses up to specific pressures more than 500 kg/cm<sup>2</sup>. The high pressure combined with high firing temperature exceeding 1200°C results in a highly compact & strong ceramic surface with very low water absorption (lower than 0.1% according to UNI EN ISO 10545-3) and extremely high mechanical resistance (average value exceeding 50 N/mm<sup>2</sup> according to UNI EN ISO 10545-4).

















Thanks to their low porosity, these porcelain tiles are frost-proof and rated as belonging to the Bla GL class according to the European Standard UNI EN 14411 which requires water absorption ≤ 0.5%. The MoR (modulus of rupture) in accordance with UNI EN ISO 10545-4 results to 50 N/mm<sup>2</sup> while the required value is 35 N/mm<sup>2</sup>. RAK Ceramics porcelain tiles are available in a wide range of designs, sizes and finishes.

### ADVICE ON LAYING

Although our porcelain tiles can be installed using traditional cement mortars, we advise using modern adhesives. When installing on walls, the two layer spreading system is recommended to perfectly wet the back of the tile.

Quickly dipping each tile in water before installation will remove any dust on the back of the tile for perfect adhesion. Do not wet the tiles if you are using vinyl, acrylic resin adhesives or two-component organic-solvent based adhesive.

It is advisable to incorporate suitable shrinkage - flexion joints (movement/expansion joints) when installing on large floors: the joints should never be spaced more than 4 - 5 linear meters apart indoors and 3 linear meters apart outdoors. Be careful while using strong coloured grouts as they might leave stains on the surface of the tiles that may be difficult to remove later.

	Test Description	Standard Test Method	International Standard ISO 13006	RAK Ceramics Specifications	
				(Rectified)	(Unrectified)
	Length & Width	BS EN ISO 10545-2	+/- 0.3%	+/- 0.1%	+/- 0.3%
	Thickness	BS EN ISO 10545-2	+/- 5.0%	+/- 5.0%	+/- 5.0%
	Rectangle Squareness	BS EN ISO 10545-2	+/- 0.3%	+/- 0.2%	+/- 0.4%
	Straightness of Sides	BS EN ISO 10545-2	+/- 0.5%	+/- 0.2%	+/- 0.3%
	Surface Flatness	BS EN ISO 10545-2	+/- 0.5%	+/- 0.3%	+/- 0.3%
	Water Absorption	BS EN ISO 10545-3	≤ 0.5%	≤ 0.4%	≤ 0.4%
	Modulus of Rupture	BS EN ISO 10545-4	≥ 35 N/mm <sup>2</sup>	≥ 40 N/mm <sup>2</sup>	≥ 40 N/mm <sup>2</sup>
	Breaking Strength	BS EN ISO 10545-4	≥ 1300N	≥ 1500N	≥ 1000N
	Resistance to Surface Abrasion	BS EN ISO 10545-6	Manufacturer to state Abrasion Class	PEI Class 2-5	PEI Class 2-5
	Linear Thermal Expansion	BS EN ISO 10545-8	≤ 9x10 <sup>-6</sup> /°C	≤ 7x10 <sup>-6</sup> /°C	≤ 7x10 <sup>-6</sup> /°C
	Resistance to Thermal Shock	BS EN ISO 10545-9	No visible defect	No visible defect	No visible defect
	Crazing Resistance	BS EN ISO 10545-11	No crazing	No crazing	No crazing
	Frost Resistance	BS EN ISO 10545-10	No visible damage	No visible damage	No visible damage
	Resistance to Chemicals	BS EN ISO 10545-13	No visible defect	No visible defect	No visible defect
	Resistance to Stains	BS EN ISO 10545-14	Manufacturer to state class	Stain removed Min. class 4	Stain removed Min. class 4
	Colour Resistance to UV Light	DIN 51094	No change in colour	No change in colour	No change in colour

**Note:** Shade variation across the batches is inherent to the manufacturing process and the pre-laying colour comparison is recommended

TYPOLGY	EDGE	SURFACE STRUCTURE
RED BODY CERAMIC TILES	STRAIGHT	SMOOTH
WHITE BODY CERAMIC TILES	RECTIFIED	LIGHT STRUCTURE
GRES WHITE BODY TILES	SHAPED	HEAVY STRUCTURE
PORCELAIN TILES		
FULL BODY PORCELAIN TILES		

FINISH	SURFACE LOOK	COLOUR VARIATIONS	INDICATIONS FOR USE
NATURAL	MATT	V1 EVEN	COUNTERTOP SURFACE
LAPPATO	SATIN	V2 LIGHT	WALL TILES
FULL LAPPATO	GLOSSY	V3 MEDIUM	FLOOR TILES
POLISHED	HIGH GLOSSY	V4 STRONG	
HONED			

SUGGESTED APPLICATIONS		
DOMESTIC PURPOSE	LIGHT COMMERCIAL TRAFFIC AREA	FACADE
OUTDOOR	HEAVY COMMERCIAL TRAFFIC AREA	INDUSTRIAL TRAFFIC AREA

## WARRANTIES

### Warranty

Whilst every RAK Ceramics product is manufactured to the highest standards, RAK Ceramics offers the following limited warranty as additional support to our customers.

RAK Ceramics Branded Products are covered by the following warranty period:-

Product:	Warranty Period:
Tiles	10 Years

## Distributors



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