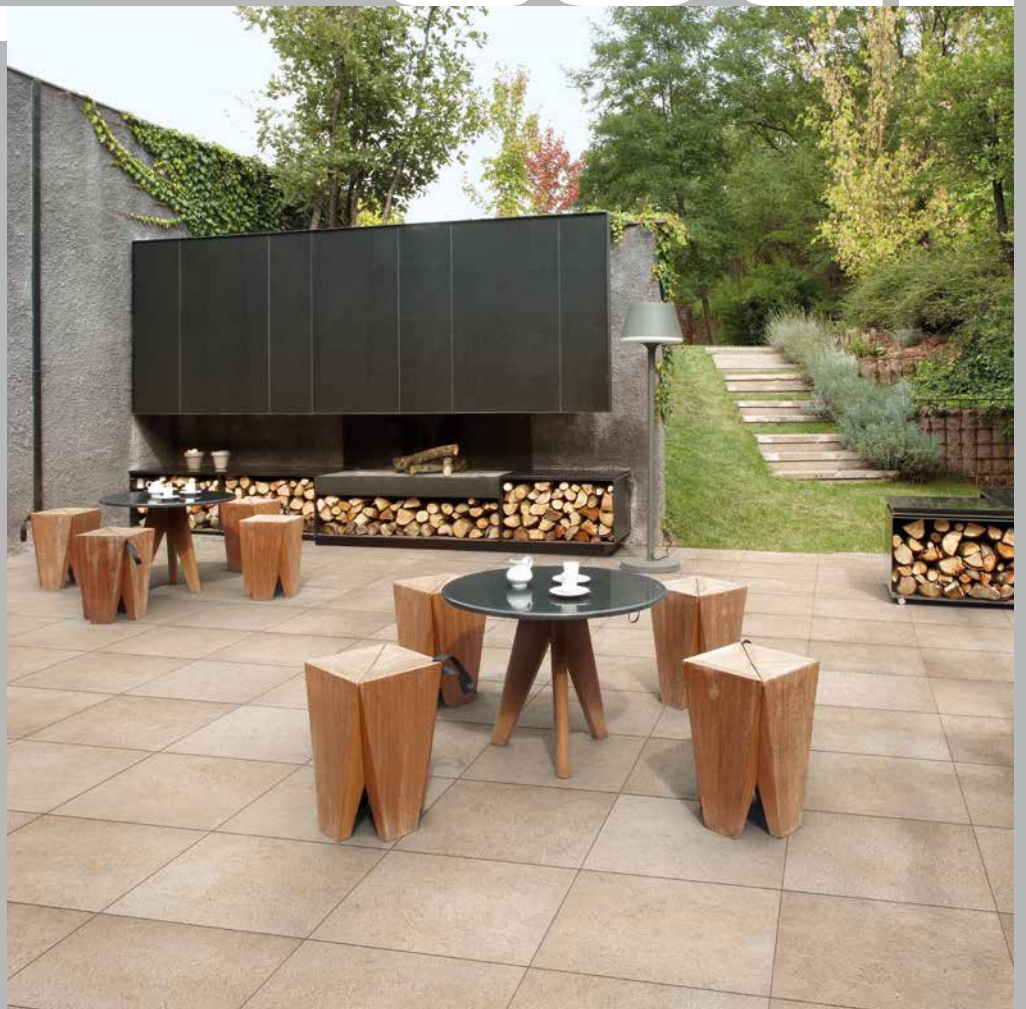
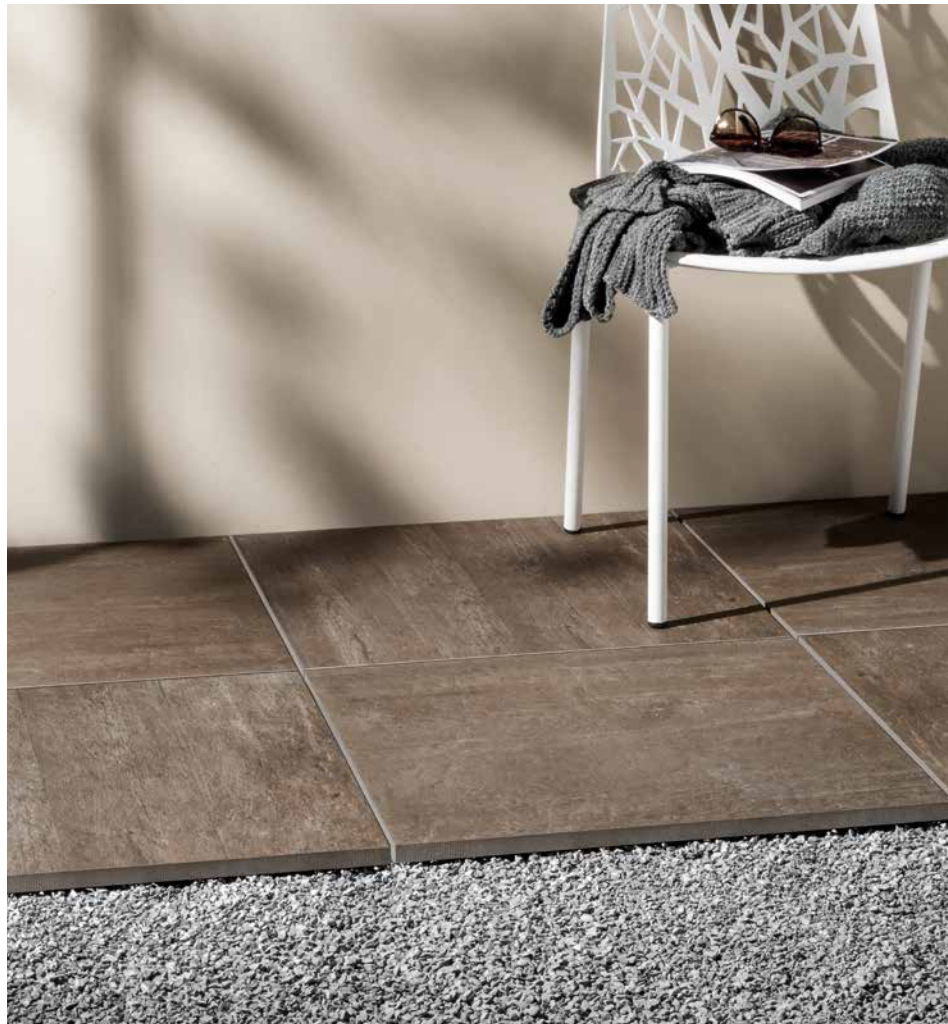


# out<sub>2.0</sub>

NEW OUTDOOR PERSPECTIVE





OUT2.0:  
20 MM THICK  
PORCELAIN STONEWARE  
BY REFIN,  
DESIGNED SPECIFICALLY FOR  
OUTDOOR  
APPLICATIONS.

Perfect for gardens, swimming pools and outdoor areas, **OUT 2.0 is the result of Refin's research into solutions for outdoors** offering the perfect combination of performance, looks and versatility. Resistant to frost, chemicals and harsh weather conditions, it is **the ideal choice for residential or commercial applications out of doors.**

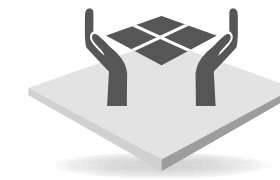
The exceptional technical features of OUT 2.0 are not affected by the passing of time and it can be fitted using one of the three following methods: raised flooring with supports, directly on top of gravel or soil, or using the tradition solution with adhesive. The monolithic slab is perfectly squared with a single work-size in a thickness of 20 mm, making tiling easier and faster compared to other materials with uneven edges.

**OUT 2.0 is also synonymous with versatility:** it is lighter and more practical than cement-based concrete and natural stone, guaranteeing an excellent load-bearing capacity and resistance to breakage, while enabling design continuity with any flooring fitted indoors. Since it is easy to clean and stain resistant, OUT 2.0 does not need any special treatments, making its maintenance demands particularly easy going.

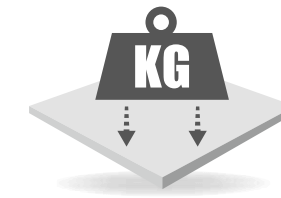
**A full range of trim tiles completes the line, making it possible to obtain a truly excellent finished result.**



## MANY BENEFITS



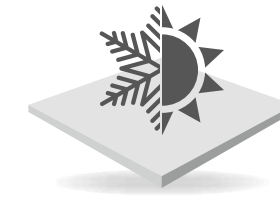
EASY TO INSTALL



RESISTANT TO BREAKING LOADS



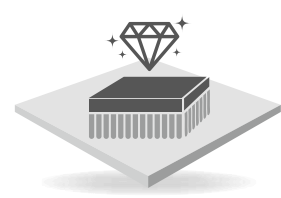
UNAFFECTED BY THE PASSING OF TIME



RESISTANT TO THERMAL SHOCK



SUPERIOR NON SLIP PERFORMANCE



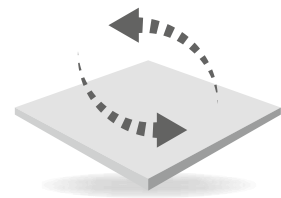
EASY TO CLEAN



PERFECT INDOOR/OUTDOOR COORDINATION



REMOVABLE FOR EASE OF INSPECTION



CAN BE REUSED



FROST PROOF AND FIREPROOF



NOT AFFECTED BY ACIDS



ECO FRIENDLY

## APPLICATIONS

OUTDOOR FLOORS

GARDENS

VERANDAS

PATHS

COURT YARDS

GARAGES

OUTDOOR STAIRS

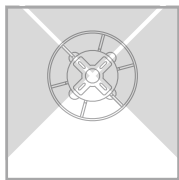
SWIMMING POOL SURROUNDS

OUTDOOR PUBLIC AREAS





01



RAISED FLOORING WITH  
SUPPORTS

OUTDOOR FLOORS

VERANDAS

OUTDOOR PUBLIC AREAS

02



DIRECTLY ON  
SOIL AND GRAVEL

GARDENS

COURT YARDS

PATHS

OUTDOOR PUBLIC AREAS

OUTDOOR FLOORS

03



TRADITIONAL  
ADHESIVE SYSTEMS

COURT YARDS AND GARAGES

OUTDOOR FLOORS

OUTDOOR STAIRS

BALCONIES AND PATIOS

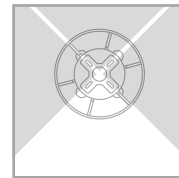
OUTDOOR PUBLIC AREAS

SWIMMING POOL SURROUNDS



# 01

## RAISED FLOORING WITH SUPPORTS



In any situation where you need a floor that can easily be taken up for inspection purposes, the raised installation of OUT 2.0 on polypropylene supports is an excellent solution.

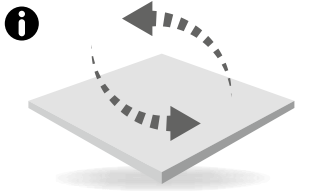
This type of tiling is known as a “dry” solution as there is no need for adhesives or grout, making for a surface that is very fast to fit and can be put into service immediately. It is the ideal solution for tiling waterproof floor surfaces.

The gap that is created between the floor's upper surface and the sub-floor provides ideal drainage for rainwater. It is also useful as a solution to conceal the wiring for lighting systems or irrigation pipework, which can easily be inspected at any time by simply lifting up the slab.

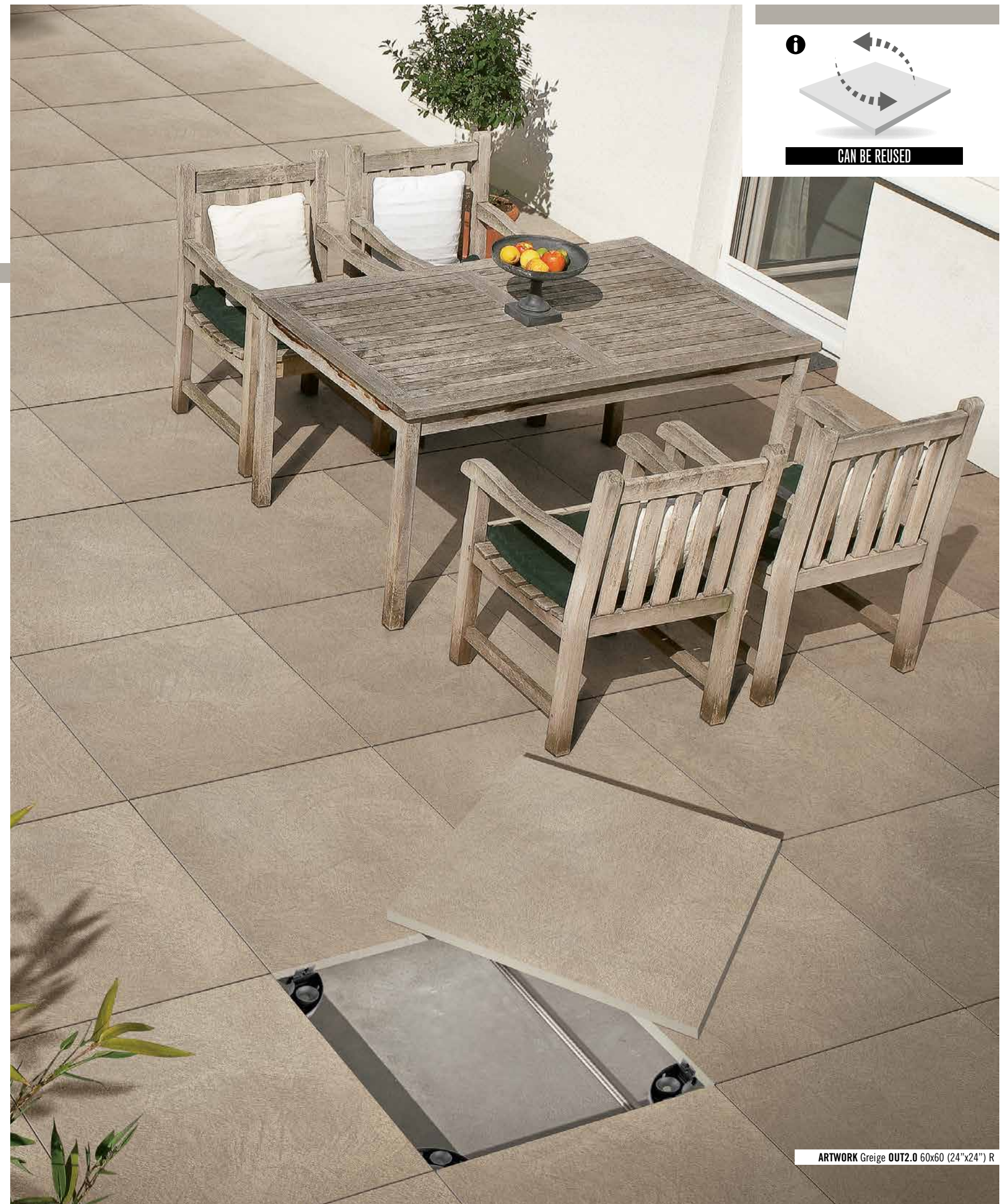


### **i** BENEFITS

- Dry installation is easy and fast, without the need for adhesives or grouts.
- The slabs can be taken up and used again for other applications.
- Concealed pipework and wiring can be inspected immediately.



CAN BE REUSED



ARTWORK Greige OUT2.0 60x60 (24"x24") R





REMOVABLE FOR EASE OF INSPECTION



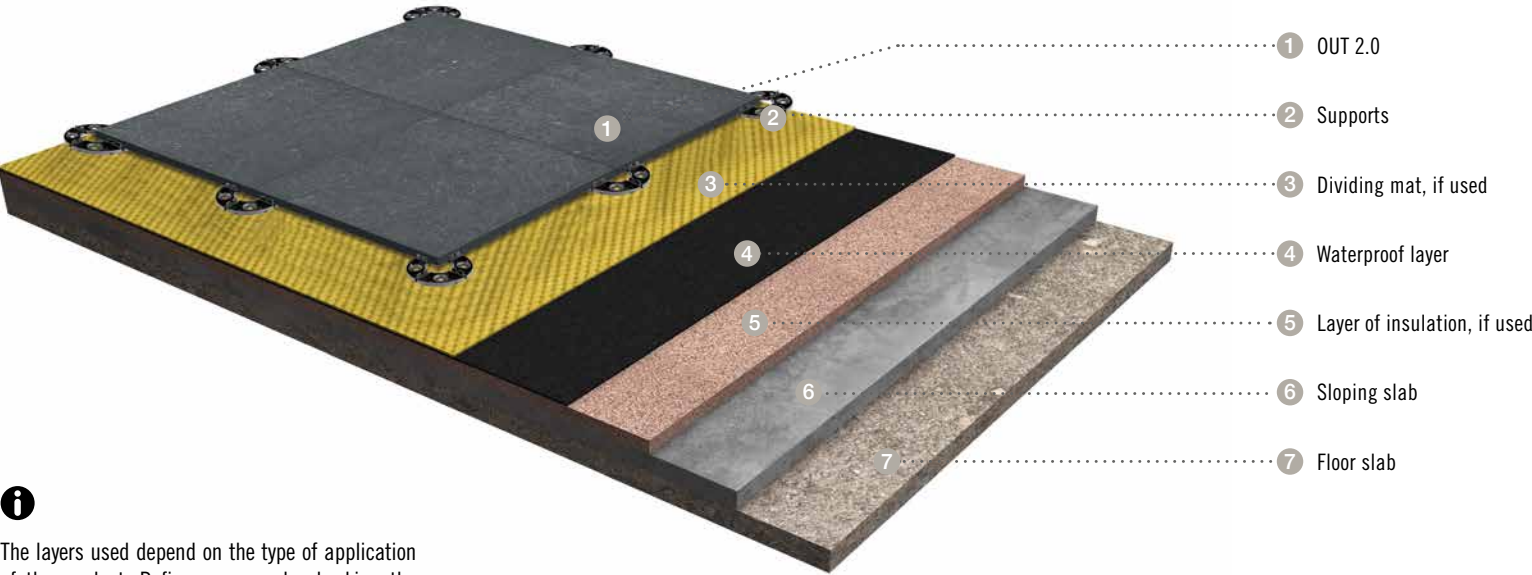
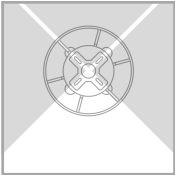
WOOD<sup>2</sup> Dust OUT2.0 75x75 (30"x30") R



# TECHNICAL GUIDE

Refin recommends careful analysis of the intended use of the floor to ensure the best method is used to fit the floor based on the specific demands. For laying on raised floors, Ceramiche Refin recommends always the maximum height of 2 cm.

For further details on the installation systems, in particular for recommendations ,restrictions of use, and precautions during installation, please refer to the notes for dry installation (page 31).

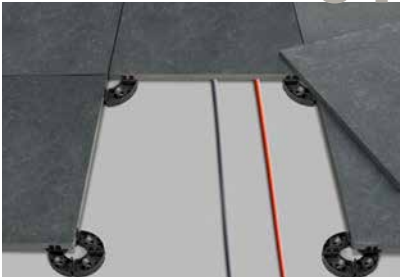


**i** The layers used depend on the type of application of the product: Refin recommends checking the specific standards that apply in your country to ensure the flooring is fitted correctly.

**i** Considering that porcelain stoneware is completely waterproof, the flooring must be provided with an appropriate slope for the conditions in which it is to be used, to allow rainwater to drain away. Nevertheless, as a result of the surface tension of the water, a film of water may remain on the surface for a few hours before evaporating. Should liquid remain on the surface, it is recommended to push it towards the grout lines using a floor brush or remove it with a wet and dry vacuum cleaner.



■ Place the OUT 2.0 on top of the supports laid out earlier.

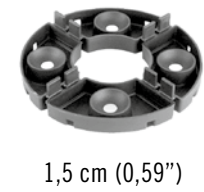


■ Check the surface is level.

## FIXED SUPPORTS

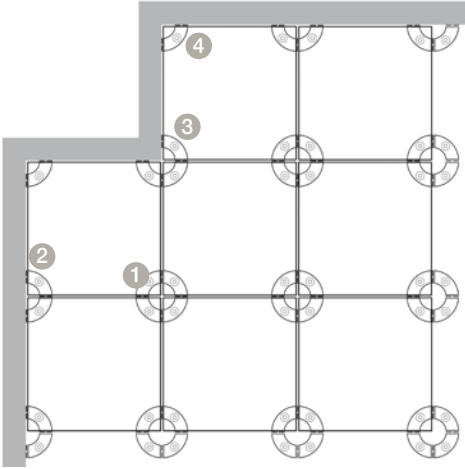


The fixed supports raise the floor by 15mm. Their ideal application is on perfectly flat sub-floor.

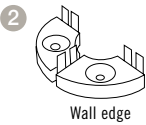


## EXAMPLE OF APPLICATION

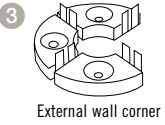
### FIXED SUPPORTS



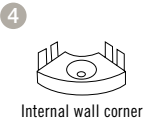
Centre of the floor



Wall edge



External wall corner



Internal wall corner

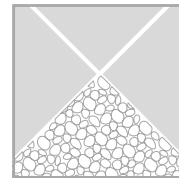


The tabs on the supports are easy to remove in order to obtain the versions of wall edge, outer wall corner and inner wall corner.



# 02

## DIRECTLY ON SOIL AND GRAVEL

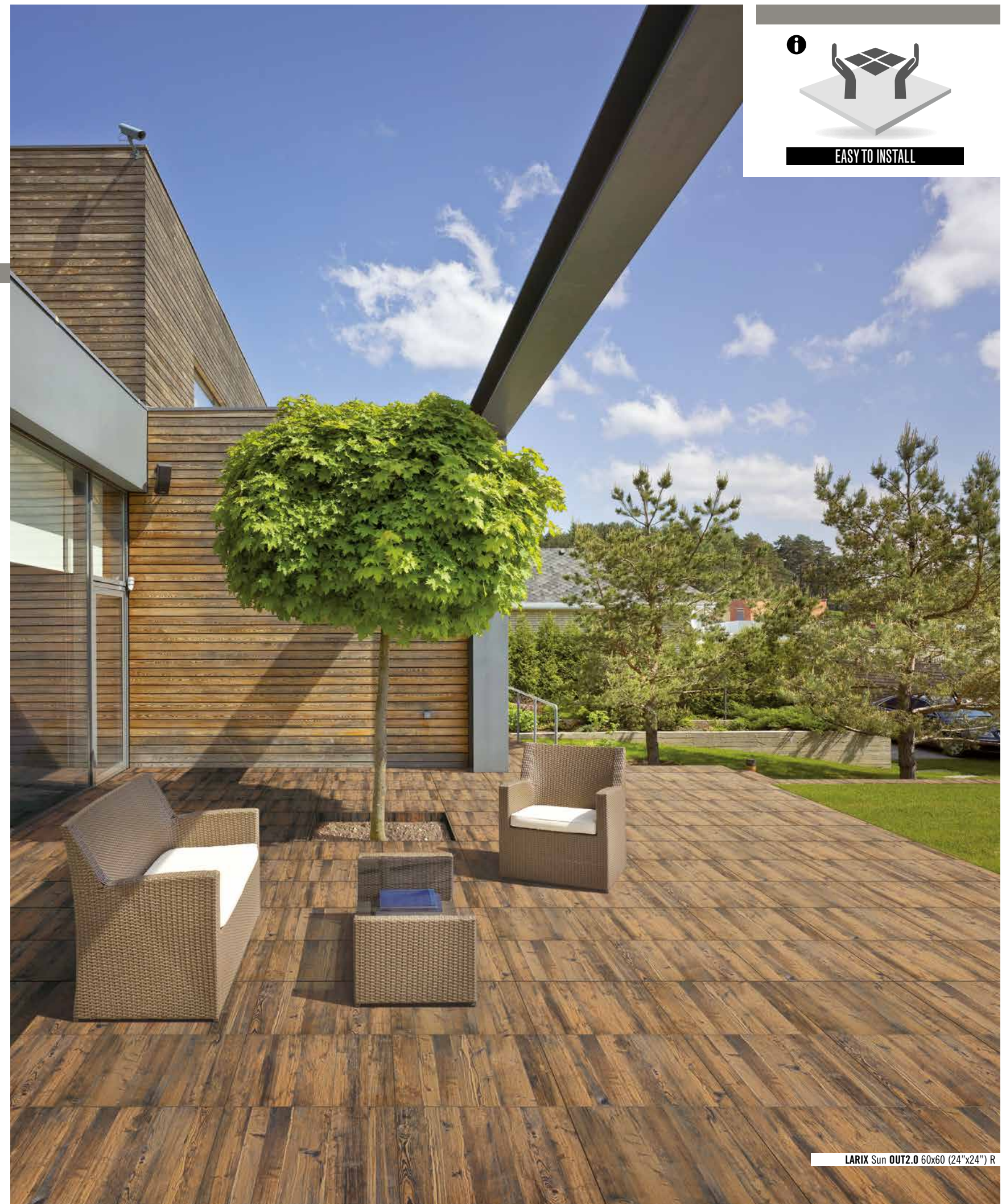
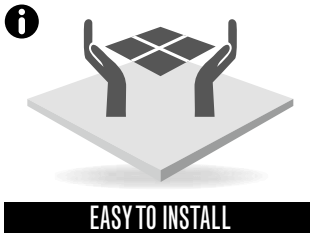


OUT 2.0 can be installed directly on top of soil and gravel.  
The flooring is easy and fast to fit, and the resulting surface can be put into service immediately; it can be taken up and used for other applications.  
A winning solution that combines fabulous looks, top quality features and unequalled convenience.



### **i** BENEFITS

- Dry installation is easy and fast, without using adhesives or grouts.
- The slabs can be taken up and used again for other applications.
- Easy to clean and stain resistant.



LARIX Sun OUT2.0 60x60 (24"x24") R





PERFECT INDOOR/OUTDOOR COORDINATION

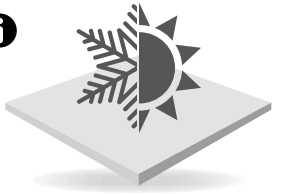


BLUETECH Vintage Charbon OUT2.0 60x60 (24"x24") R  
BLUETECH Vintage Charbon 60x60 (24"x24") R





i



RESISTANT TO THERMAL SHOCK

ARTWORK Grigio OUT2.0 60x60 (24"x24") R STR.



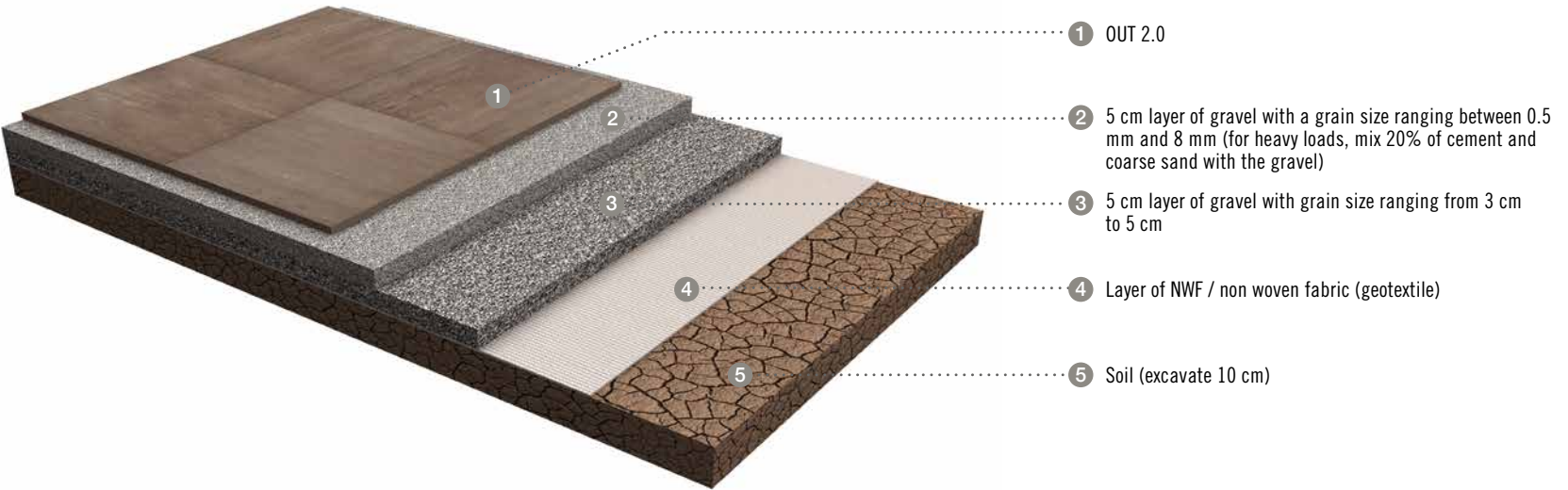
# TECHNICAL GUIDE

Direct laying on top of gravel assumes a natural, inevitable settling process of the sub-floor that it is important to take into account during the planning stage and for the use of the flooring.

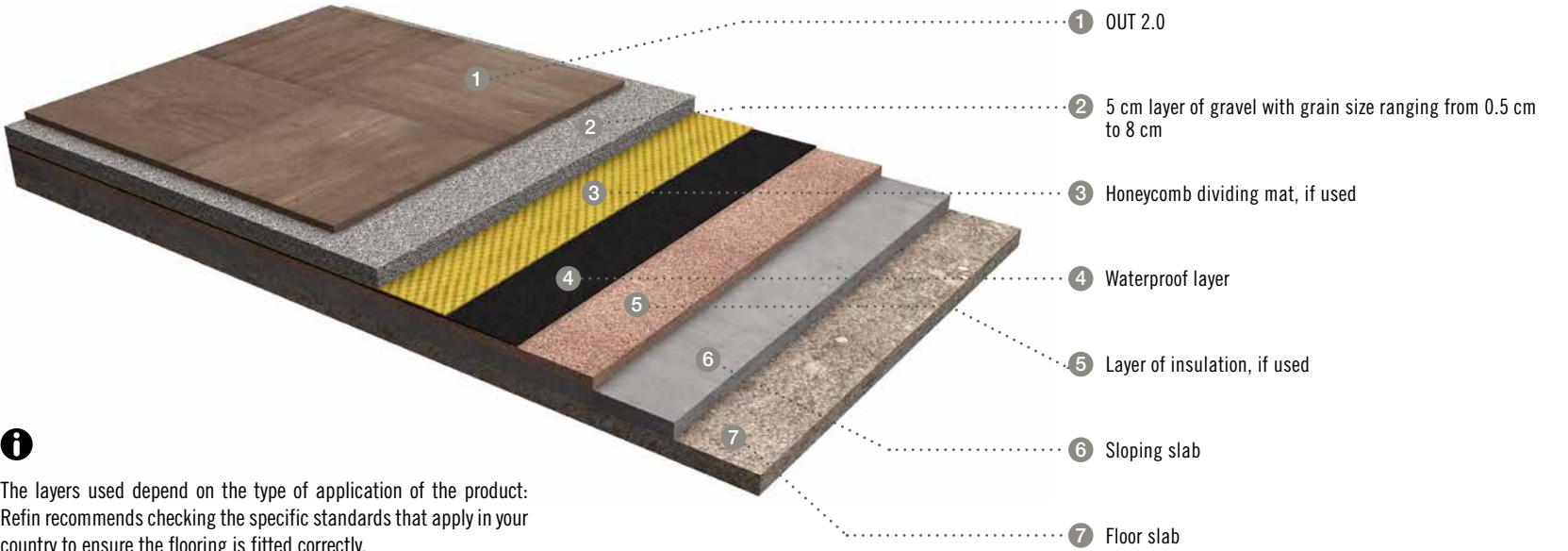
Refin recommends careful analysis of the intended use of the floor to ensure the best method is used to fit the floor based on the specific demands.

For further details on the installation systems, in particular for recommendations ,restrictions of use, and precautions during installation, please refer to the notes for dry installation (page 31).

## INSTALLING ON TOP OF GRAVEL

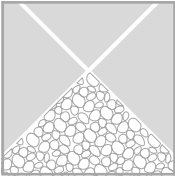


## INSTALLING ON TOP OF A FLOOR BED



**i** The layers used depend on the type of application of the product. Refin recommends checking the specific standards that apply in your country to ensure the flooring is fitted correctly.

**i** Considering that porcelain stoneware is completely waterproof, the flooring must be provided with an appropriate slope for the conditions in which it is to be used, to allow rainwater to drain away. Nevertheless, as a result of the surface tension of the water, a film of water may remain on the surface for a few hours before evaporating. Should liquid remain on the surface, it is recommended to push it towards the grout lines using a floor brush or remove it with a wet and dry vacuum cleaner.



01

- Level the layer of gravel with care.



02

- Put the slabs into position.



03

- Use spacers to ensure the distance between all the slabs is the same.



# 03

## TRADITIONAL ADHESIVE SYSTEMS

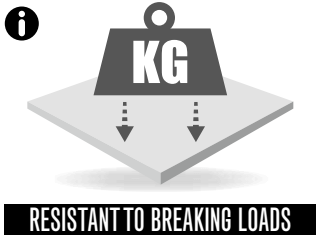


The excellent hardwearing properties of 20 mm thick OUT 2.0 porcelain stoneware make it an ideal solution for surfaces that will be driven over by vehicles, provided it is installed using an adhesive and on a properly prepared concrete slab. Its superior anti-slip performance make it ideal for specific applications such as swimming pools and spas. Available in the 60x60 cm, 75x75 cm and 45x90 cm sizes, OUT 2.0 combines good looks and practical use with a full range of colours and surprisingly low maintenance and cleaning demands.



### **i** BENEFITS

- Ideal for floor surfaces subject to road vehicles.
- Easy to clean and stain resistant.
- High resistance to strain.
- Can be used for swimming pool surrounds.



Wide Steel OUT 2.0 60x60 (24"x24") R Strutt.





SUPERIOR NON SLIP PERFORMANCE



PANGEA BARGE Grigio **OUT2.0** 60x60 (24"x24") R  
Bordo 30x60 (12"x24") R  
Bordo Angolare **DX** 30x60 (12"x24") R  
Bordo Angolare **SX** 30x60 (12"x24") R





PIETRE DI BORGOGNA Sabbia OUT2.0 60x60 (24"x24") R STR.





WOOD<sup>2</sup> Tobacco **OUT2.0** 60x60 (24"x24") R  
Elemento L 15x60 (6"x24") R

**i**



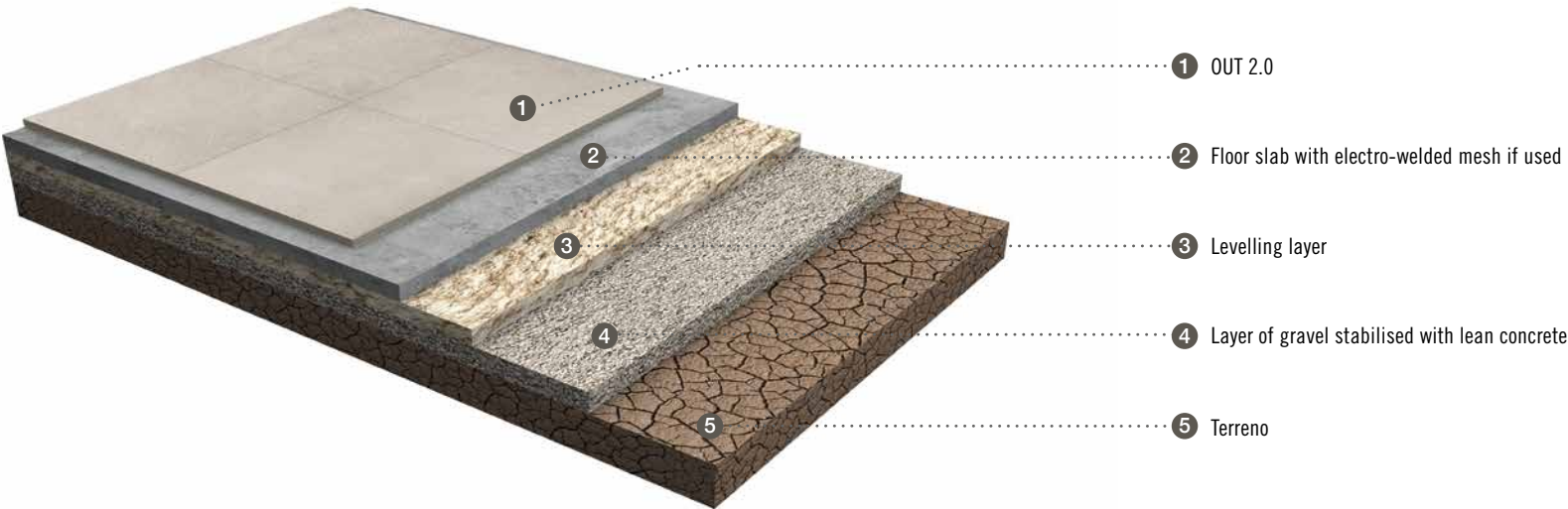
SUITABLE FOR VEHICLES

The floor surface can only be considered suitable for road vehicles if it has been installed correctly using an adhesive and on a properly prepared concrete slab.

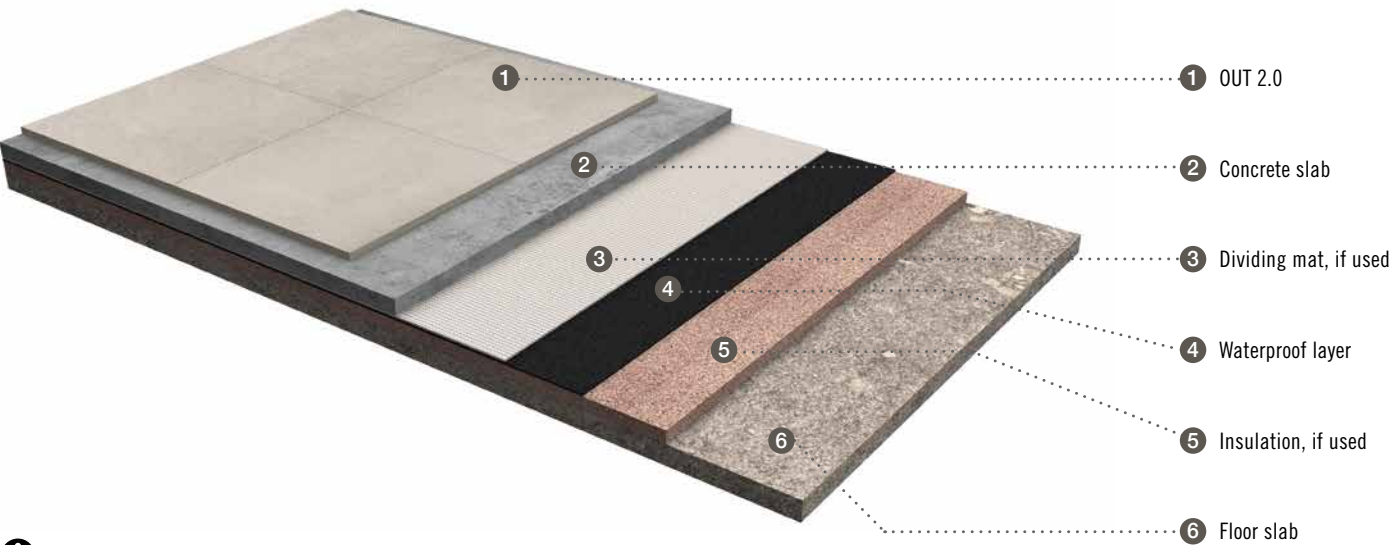
Refin recommends careful analysis of the intended use of the floor to ensure the best method is used to fit the floor based on the specific demands.



GLUED ONTO GROUND



GLUED ON THE FLOOR BED



**i**

Considering that porcelain stoneware is completely waterproof, the flooring must be provided with an appropriate slope for the conditions in which it is to be used, to allow rainwater to drain away. Nevertheless, as a result of the surface tension of the water, a film of water may remain on the surface for a few hours before evaporating. Should liquid remain on the surface, it is recommended to push it towards the grout lines using a floor brush or remove it with a wet and dry vacuum cleaner.



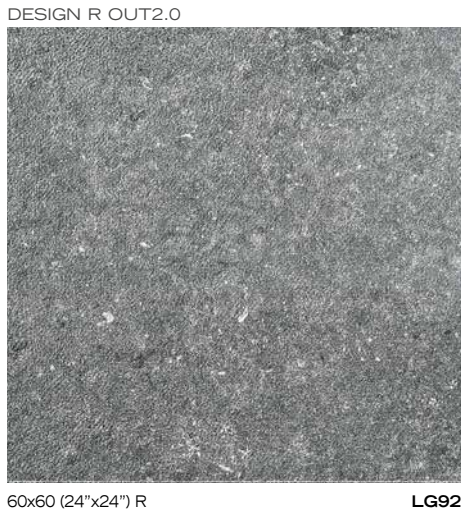
Artwork



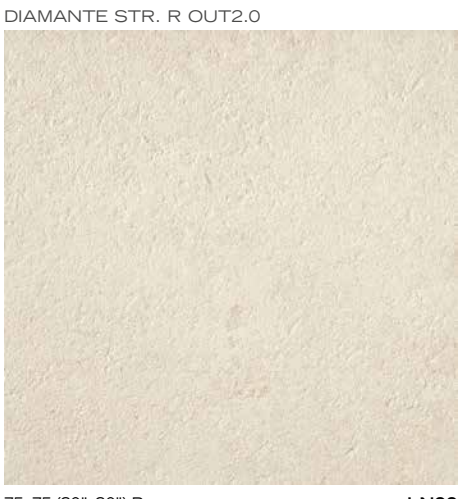
Pangea Barge



Bluetech



Pietre di Borgogna



Larix



Poesia



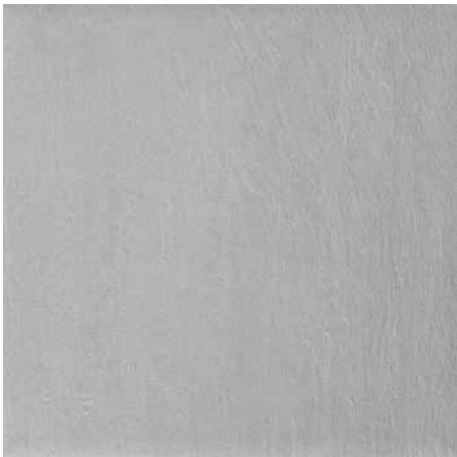


PORCELAIN STONEWARE

R: Rectified

Wide

STEEL STR. R OUT2.0



60x60 (24"x24") R LJ01

CARBON STR. R OUT2.0



60x60 (24"x24") R LJ02

Wood<sup>2</sup>

DUST R OUT2.0

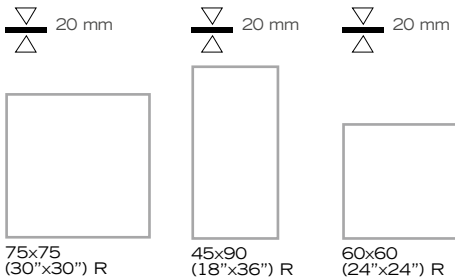


75x75 (30"x30") R LN01  
60x60 (24"x24") R LG97

TOBACCO R OUT2.0

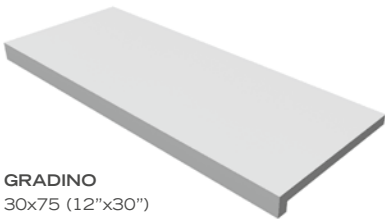


60x60 (24"x24") R LL77

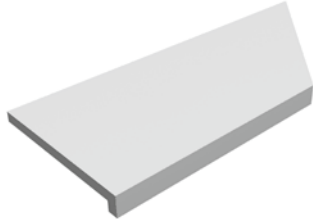


TRIM TILES

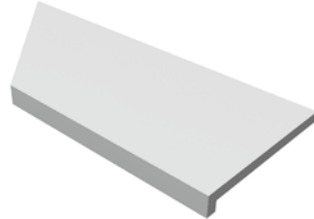
Porcelain stoneware  
R: Rectified



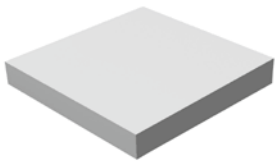
GRADINO  
30x75 (12"x30")  
30x60 (12"x24")  
15x75 (6"x30")  
15x60 (6"x24")



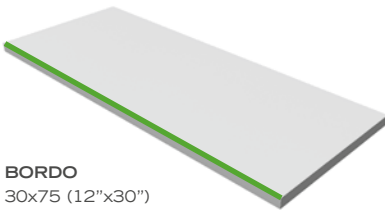
GRADINO ANGOLARE IN SX  
30x75 (12"x30")  
30x60 (12"x24")  
15x75 (6"x30")  
15x60 (6"x24")



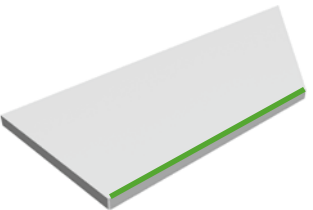
GRADINO ANGOLARE IN DX  
30x75 (12"x30")  
30x60 (12"x24")  
15x75 (6"x30")  
15x60 (6"x24")



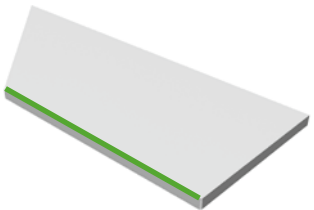
GRADINO ANGOLARE  
30x30 (12"x12")  
15x15 (6"x6")



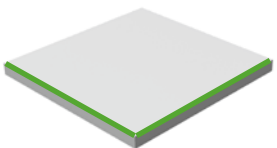
BORDO  
30x75 (12"x30")  
30x60 (12"x24")  
15x75 (6"x30")  
15x60 (6"x24")



BORDO ANGOLARE IN SX  
30x75 (12"x30")  
30x60 (12"x24")  
15x75 (6"x30")  
15x60 (6"x24")

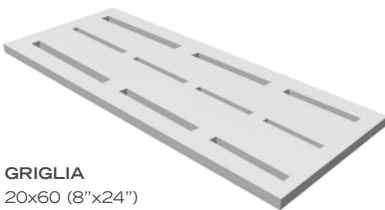


BORDO ANGOLARE IN DX  
30x75 (12"x30")  
30x60 (12"x24")  
15x75 (6"x30")  
15x60 (6"x24")

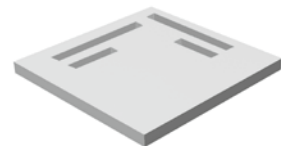


BORDO ANGOLARE  
30x30 (12"x12")  
15x15 (6"x6")

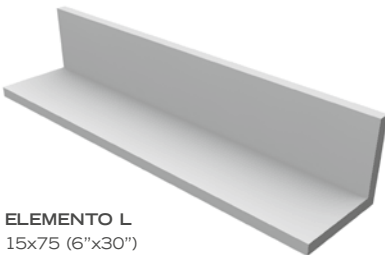
Lato Bisellato  
Bevelled side  
Côté biseauté  
FacettenKante



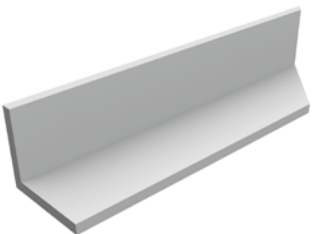
GRIGLIA  
20x60 (8"x24")  
15x60 (6"x24")



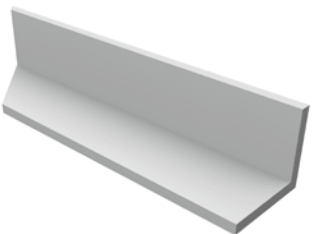
GRIGLIA ANGOLARE  
20x20 (8"x8")  
15x15 (6"x6")



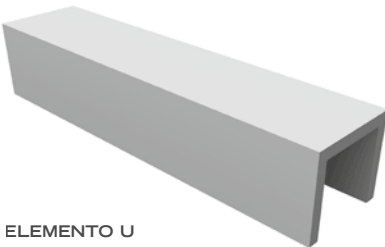
ELEMENTO L  
15x75 (6"x30")  
15x60 (6"x24")



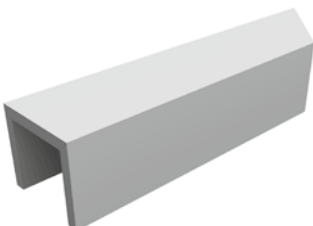
ANGOLARE L IN SX  
15x75 (6"x30")  
15x60 (6"x24")



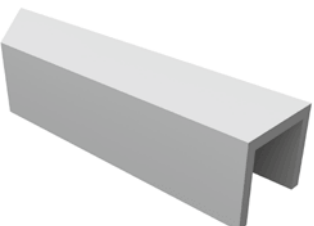
ANGOLARE L IN DX  
15x75 (6"x30")  
15x60 (6"x24")



ELEMENTO U  
15x75 (6"x30")  
15x60 (6"x24")



ANGOLARE U IN SX  
15x75 (6"x30")  
15x60 (6"x24")



ANGOLARE U IN DX  
15x75 (6"x30")  
15x60 (6"x24")

TRIM TILES AVAILABLE UPON REQUEST IN ALL THE COLOURS OF THE OUT2.0 RANGE





ARTWORK Cenere OUT2.0 60x60 (24"x24") R STR.  
Elemento U 15x60 (6"x24") R  
Angolare U DX 15x60 (6"x24") R  
Angolare U SX 15x60 (6"x24") R



PIETRE DI BORGOGNA Diamante OUT2.0 75x75 (30"x30") R  
Bordo 30x75 (12"x30") R  
Bordo Angolare DX 30x75 (12"x30") R  
Bordo Angolare SX 30x75 (12"x30") R

# RECOMMENDATIONS FOR DRY INSTALLATION

If the application of the 20 mm slabs foresees the ceramic product used in structural installations, the project engineer and/or customer must carefully assess the project requirements with regard to the technical specifications of the slabs. To prevent the risk of damage or injury, the manufacturer recommends:

- With regard to a raised floor installation a ceramic slab may fracture on impact if a heavy object falls on it from any significant height. Therefore the manufacturer recommends to check the specific intended use before starting the installation and to follow table for raised installation provided below. In certain conditions, reinforcing must be applied on the back of the slabs (mesh plus or galvanized steel sheet) supplied by the manufacturer;
- With reference to any dry installation system of flooring above the ground level, the manufacturer recommends to comply with local regulations and conditions of use with regard to wind-load, loadbearing, seismic events, etc.

Failure to comply with these recommendations may lead to improper use of the product and could cause serious damage or injury.

## SIZES/NUMBER OF SUPPORTS/HEIGHT OF RAISED FLOOR

SIZE			UP TO 2 CM (3/4")	ABOVE 2 CM (3/4")
60X60 CM / 24"X24"		4 SUPPORTS PER SLAB	4 SUPPORTS 3,4 PCS/M²	PLEASE CONTACT CERAMICHE REFIN
75X75 CM / 30"X30"		4 SUPPORTS PER SLAB	4 SUPPORTS 3,4 PCS/M²	
45X90 CM / 18"X36"		6 SUPPORTS PER SLAB	6 SUPPORTS 3,4 PCS/M²	

**i** The number of supports necessary for a floor is indicative and representative. Refin recommends to allow a safety margin.












NOTE: For any detail and technical specication concerning the ber mesh plus or the galvanized steel sheet, please contact Ceramiche Refin . Ceramiche Refin is responsible only if it supplies the whole system (tile + ber mesh plus or galvanized sheet). Ceramiche Refin cannot be held responsible for reinforcing systems that has not supplied. In case of breakage, tile must be replaced immediately.

## SUPPORTS

SUPPORT	CODE	HEIGHT
FIXED SUPPORT	L764	1,5 cm (0,59")









TECHNICAL FEATURES

PORCELAIN STONEWARE												
STANDARD UNI EN 14411 - ISO13006 Gruppo Bla Annex G												
		REGULATION	EN 14411 ISO 13006 REQUIRED STANDARDS		REFIN VALUES							
					ARTWORK	BLUETECH	LARIX	PANGEA	PIETRE DI BORGOGNA	POESIA	WIDE	WOOD²
	SIZES	UNI EN ISO 10545/2	• Length and width	± 0,6 % max	ACCORDING							
			• Thickness	± 5 % max								
			• Linearity	± 0,5 % max								
			• Wedging	± 0,5 % max								
			• Warpage	± 0,5 % max								
	WATER ABSORPTION	UNI EN ISO 10545/3	≤ 0,5%		0,2%							
	FLEXUAL STRENGHT	UNI EN ISO 10545/4	S ≥ 1300 N (>7,5 mm) R ≥ 35 N/mm²		S 13671N R 51 N/mm²							
		EN 1339	-		U11*							
	DEEP ABRASION RESISTANCE	UNI EN ISO 10545/6	≤ 175 mm³		ACCORDING							
	THERMAL SHOCK	UNI EN ISO 10545/9	No sample must show visible defects		RESISTANT							
	FROST RESISTANCE	UNI EN ISO 10545/12	RESISTANT		FROST-PROOF							
	CHEMICAL RESISTANCE**	UNI EN ISO 10545/13	Tests method available		ACCORDING							
	STAIN RESISTANCE	UNI EN ISO 10545/14	Tests method available		CLASS 5							
	ASSESSMENT OF SLIP RESISTANCE	DIN 51130	R		R11							
	MEASUREMENT OF DYNAMIC FRICTION COEFFICIENT	BOT 3000	> 0,42		ACCORDING							

\* Value referred to the 60x60cm (24"x24") and 75x75cm (30"x30") sizes.  
\*\* Chemical products for household use and swimming pool additives

TECHNICAL DATA	
REACTION TO FIRE	Class A1 FL
DENSITY	2370 Kg/m³

PACKING							
SERIES	SIZE						
OUT 2.0	45x90 - 30"x30" R	2	0,8100	37,00	27	21,87	999,00
	75x75 - 30"x30" R	1	0,5625	25,00	42	23,63	1050,00
	60x60 - 24"x24" R	2	0,7200	33,80	30	21,60	1014,00

WARNING

Outdoor pavings installed unglued above the ground level are subject to the action of the wind, with the risk, in some cases, of becoming airborne. The manufacturer recommends to require the assistance of a qualified professional in order to check the suitability of the installation system above the ground adopted, in accordance with the local laws and regulations and the conditions of use. Failure to do so could result in serious injury or property damage.

A ceramic slab installed on a raised pedestal system may fracture on impact if a heavy object is dropped onto it from a height, with a risk of injury to anyone standing or walking on such slab. Failure to adhere to the manufacturer's instructions for installation of slabs on raised pedestal systems may result in serious injury.





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