



esterno®

where charm and technology merge



external  
porcelain  
flooring

Esterno is a consistent single material blend porcelain stoneware tile. Perfectly squared and rectified with 20 mm thickness, 600x600 mm and an anti-slip surface finish.

Esterno does not run the risk of material delamination as it is a single solid material bond. Esterno reduces weight and thickness when compared to standard paving.

truly unique

1



Cover: Earth-Stone Sand with Millboard Charcoal



Earth-Stone Pebble  
600x600mm

six good reasons...

2

## to choose esterno

- Easy and quick to install
- Low maintenance, no sealing required
- Anti-slip up to R11 rating
- Frost-resistant
- Non porous - resists stains and algae
- Resistant to marking and scratching

## 4 methods of installation

The Esterno system offers four installation solutions depending on the application:

- Installation onto gravel is quick and functional;
- Spaced installation onto grass offers a stylish alternative;
- Raised installation - suitable for roof terraces and balconies and allows utilities to run underneath. Easily removable simply by lifting the slabs;
- Traditional adhesive installation - extremely resilient and suitable for outdoor paths and driveways.

3

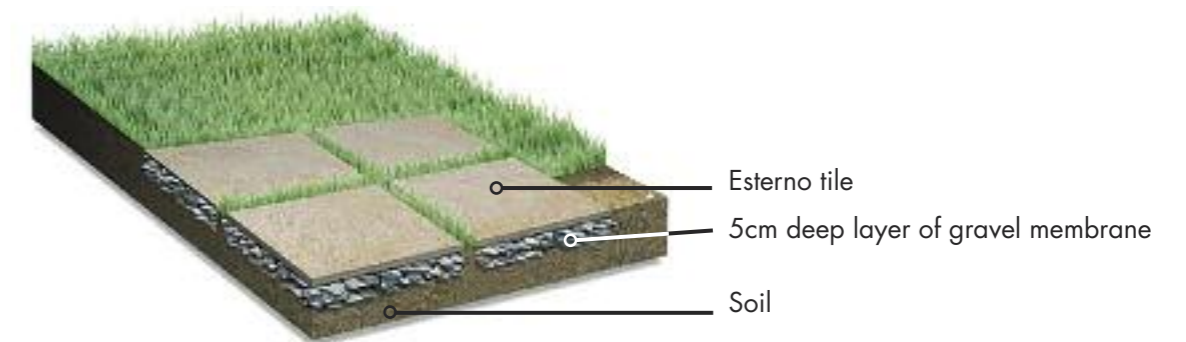


4

Spaced installation onto grass



versatile solutions



## raised system advantages

Quick and easy to install, the 'dry installation system' does not require any adhesives or grouts and the tiles used can be removed and re-used.

The raised installation system for outdoor application allows for the laying of lighting cabling and pipework under the floor with the opportunity to easily remove them and check them at any time, thus reducing maintenance time and costs in comparison to traditional floors.

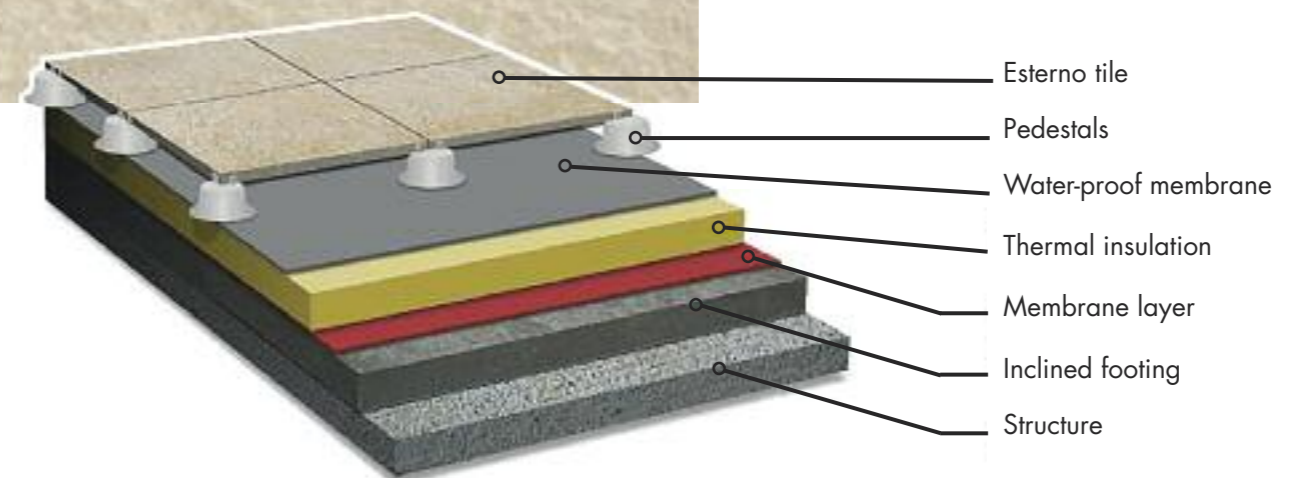
It is possible to correct levels and gradients of the surface with our adjustable supports equipped with 'self-levelling heads'; assisting drainage as water freely flows between the paving gaps to the roof membrane and away.



5

## raised system

Raised installation onto pedestals



6

## a multitude of applications

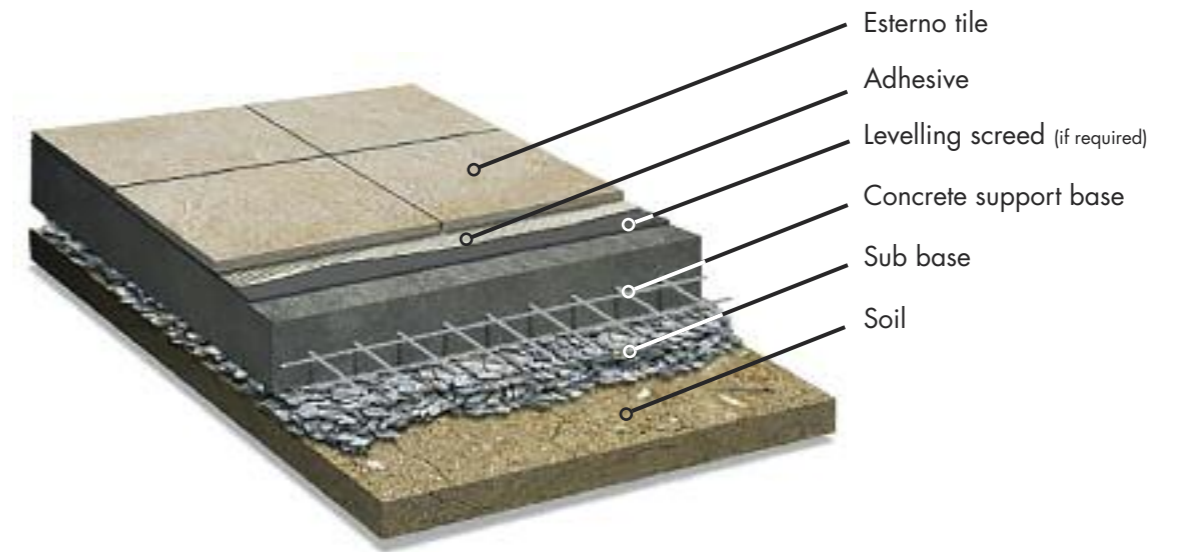
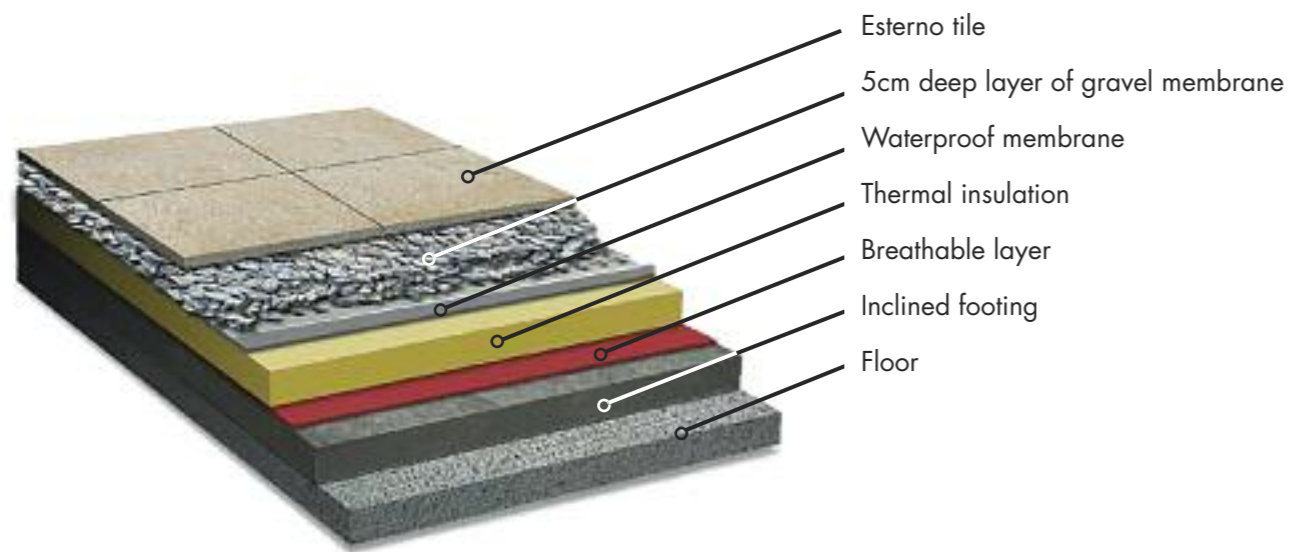
The versatility, strength and style of Esterno external porcelain flooring and the many choices of installation method makes it the perfect solution for all outdoor applications.

Esterno from Millboard can be used in residential applications; terraces, patios, gardens, and balconies as well as in public spaces such as restaurants and bars; also external spaces in leisure centres, swimming-pools and recreational areas are ideal for Esterno.

7



8



## Wood-Stone

The elegant wood-stone range creates the beautiful warmth of wood, without the maintenance or slip issues.

It's impervious porcelain material means it can be installed in locations where timber is not suitable.

9

unique warmth

Light Oak 600x600mm

10

Dark Walnut 600x600mm



Ecru Bullnosed 600x600mm

where  
charm  
meets  
technology

## Earth-Stone

Inspired by flamed limestone, the earth-stone range truly replicates such a contemporary style and finish.



## Elements

The elements range replicates the timeless, rustic beauty of quartz, in any project.

Being non-porous, esterno requires no sealants eliminating the need for the usual maintenance.



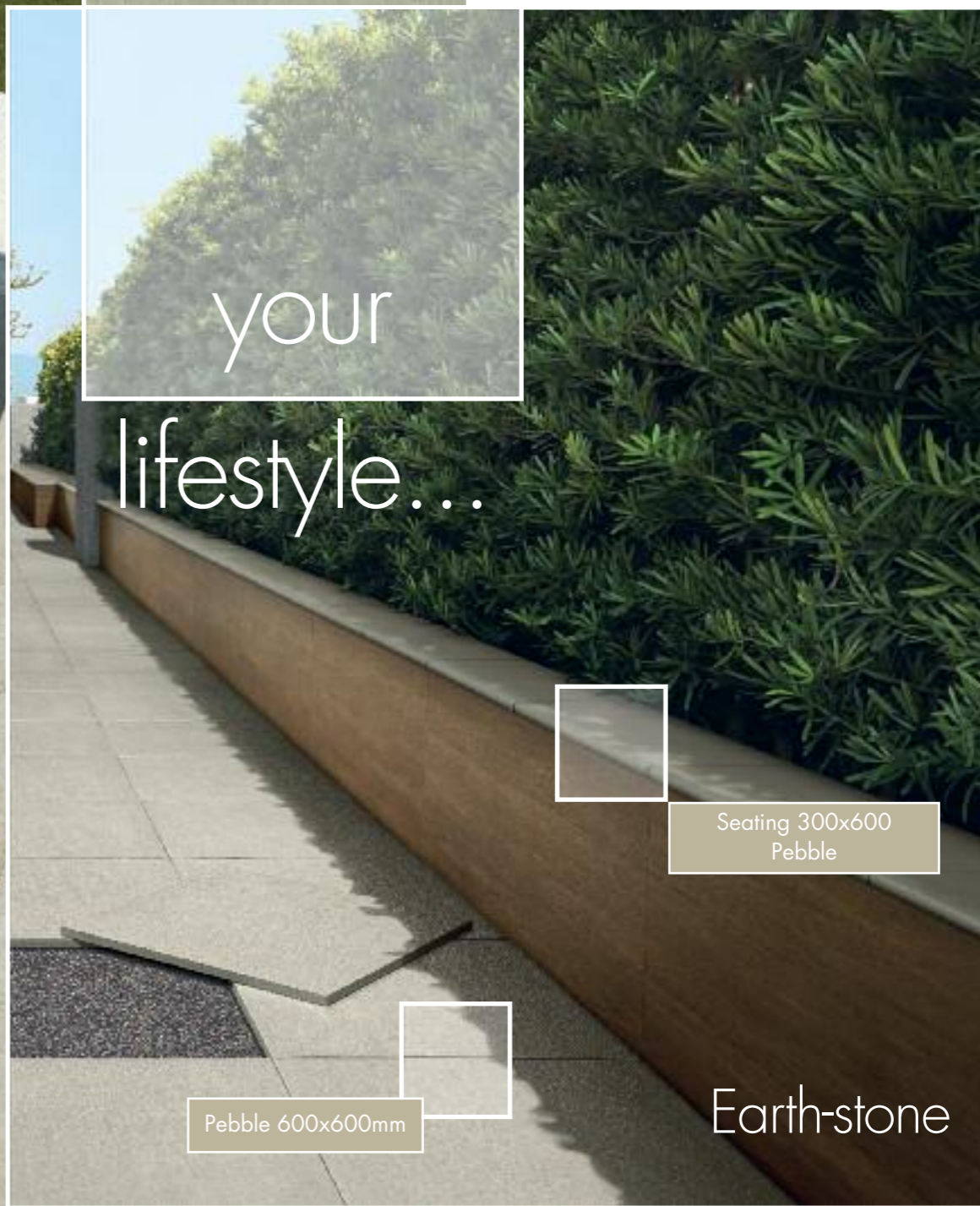
Golden Quartz 600x600mm





Elements

Light Quartz 600x600mm



your lifestyle...



Seating 300x600 Pebble



Pebble 600x600mm

Earth-stone

## Metropolis

The clean design of the Metropolis range brings the minimalistic effect of timber shuttered concrete.

resistant

+ durable



Grey 600x600mm

clean + contemporary

19



Charcoal 600x600mm

20

## Urban

In response to the growing trend for cleaner, more contemporary colours, the urban range is the ideal choice to bring style and sophistication to your project.

This range boasts a much sought after smooth, clean and crisp look and feel of basalt or slate.

Graphite 600x600mm



designed for designers

21

22

Earth-Stone range

Sand 600x600mm

Millboard staff will support architects in any project detail, offering comprehensive assistance from the choice of materials, to layout and installation patterns through to maintenance recommendations.

Edging 200x600mm

23 practical + stylish



Drainage 200x600mm

Bullnosed edging 300x600mm,  
drainage flexi 250x600mm

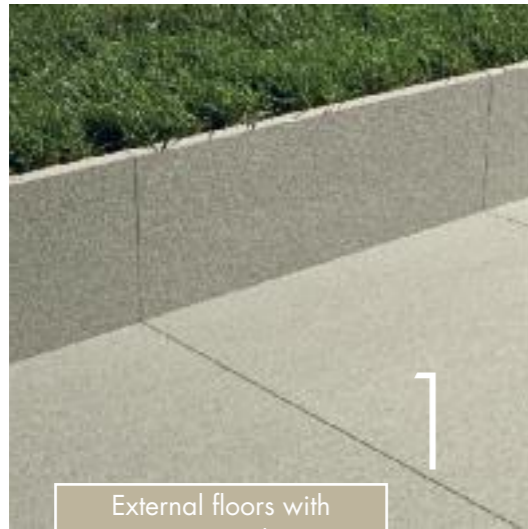
form + function

25

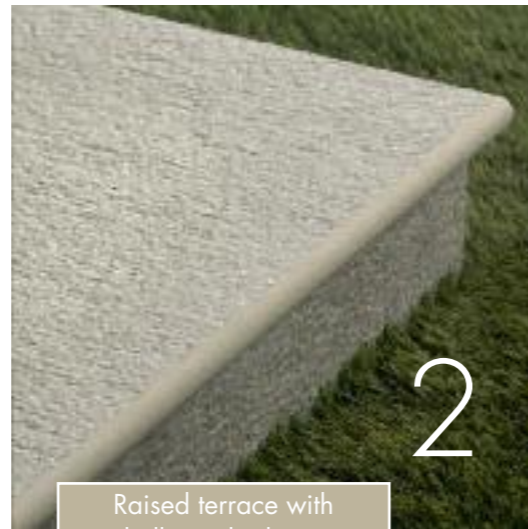
26

Ecrú 600x600

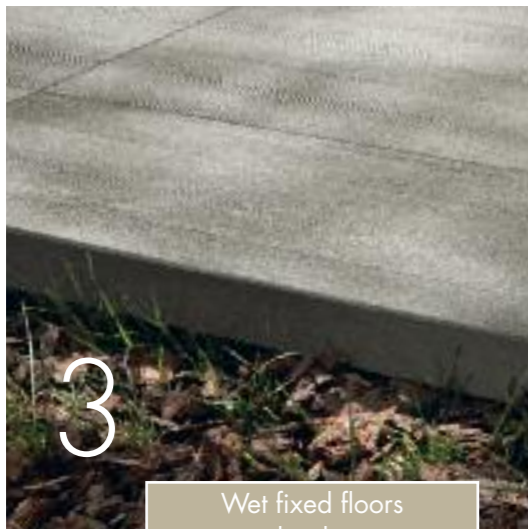
Esterno is a system created to meet the needs of designers who are looking for continuity and synergy in outdoor projects; offering a broad range of the highest quality, high performance products, as well as a selection of trim tiles and accessories to complement your project.



1  
External floors with perimeter edging



2  
Raised terrace with bullnosed edging



3  
Wet fixed floors with edging

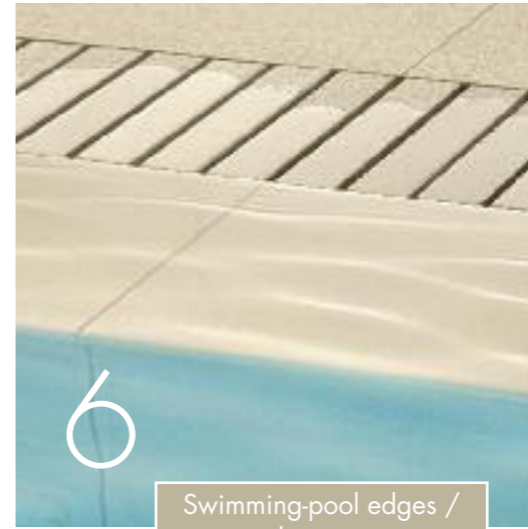


4  
steps in a variety of sizes

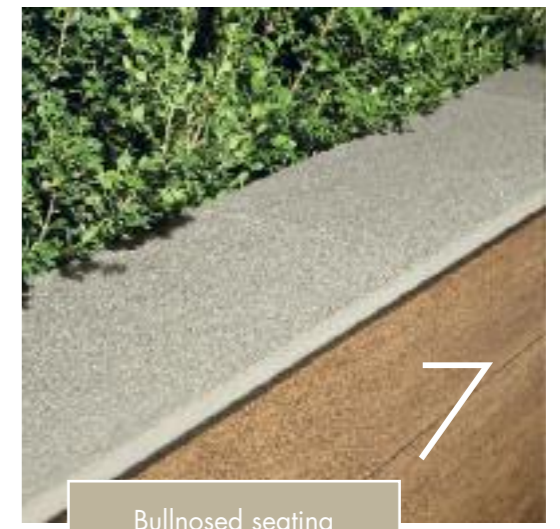


5  
Drainage channels

seven  
outdoor  
features...



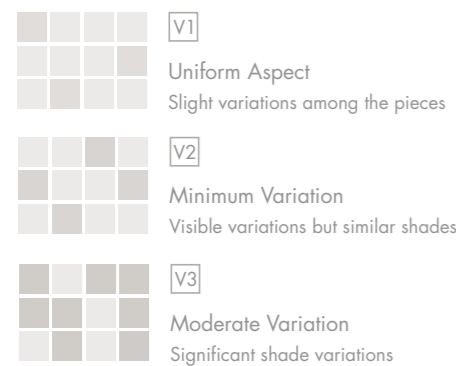
6  
Swimming-pool edges / drainage



7  
Bullnosed seating

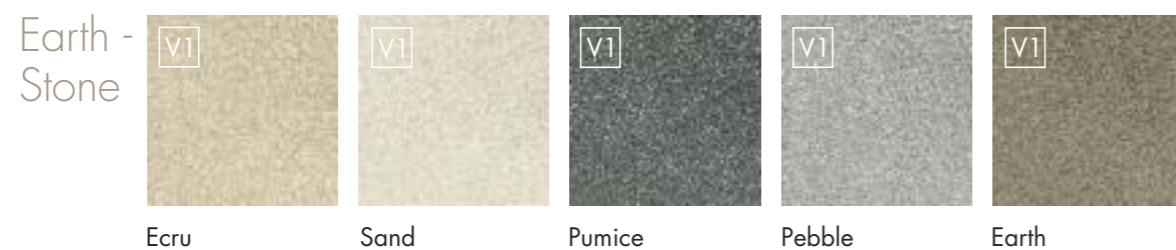
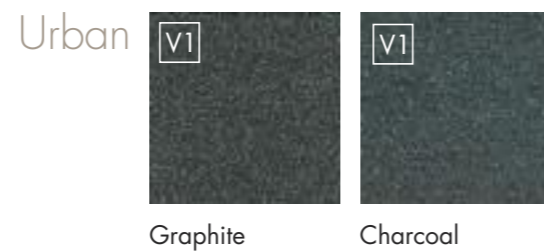
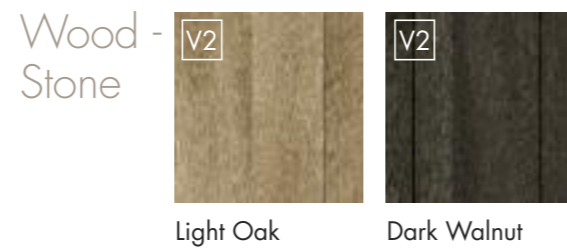
your  
choice...

Due to manufacturing processes and natural materials used, there may be varying degrees of shade variations as described below and indicated on these swatches.



### Standard tiles

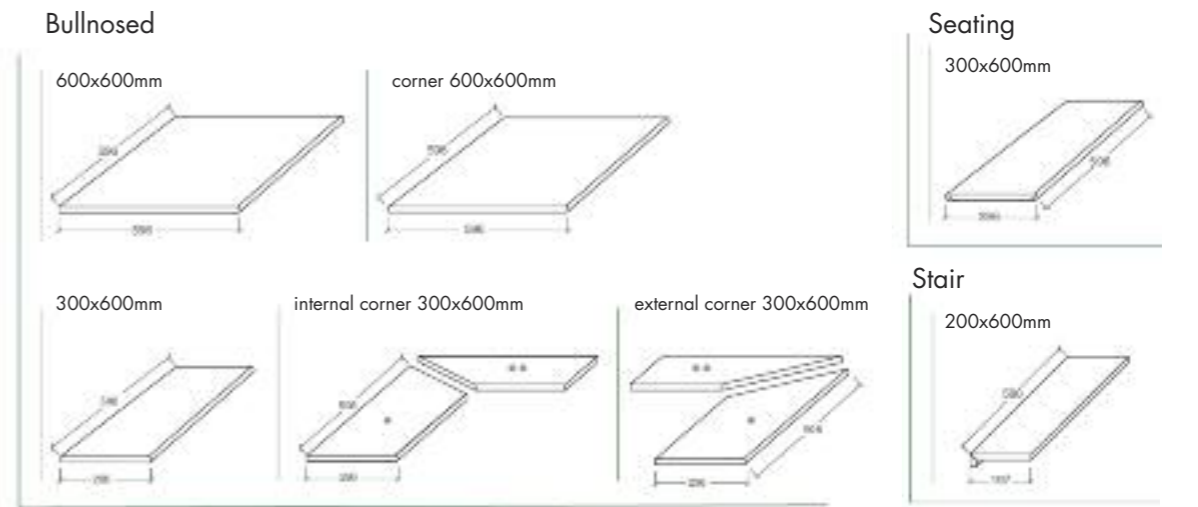
600x600mm  
In a choice of 13 colours



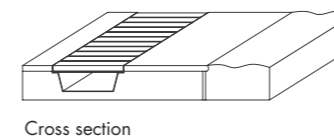
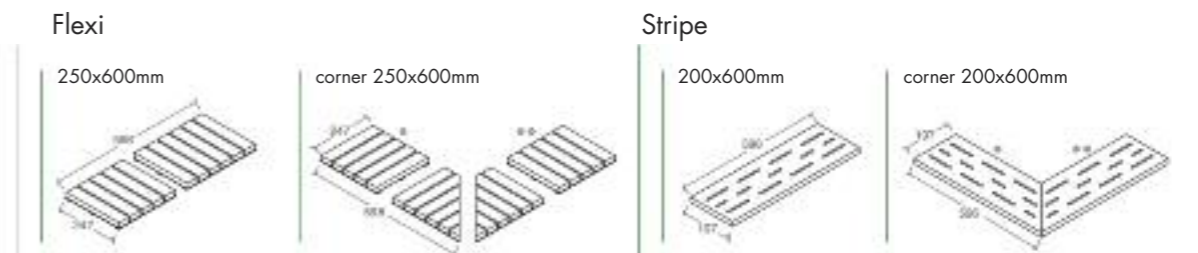
### Edging, steps and drainage

a wide selection of trim tiles to meet different project planning needs.

- left corner
- right corner



**Drainage** 20 mm thick porcelain stoneware + 4 mm thermoplastic acrylic resin



Please confirm lead times on all of the above at the time of enquiry

### Packaging

tile size	box			pallet		
	Pieces	M <sup>2</sup>	KG	Packs	M <sup>2</sup>	KG
600x600	2	0,72	~33,00	30 - 32	21.60 - 23	~990 - 1100



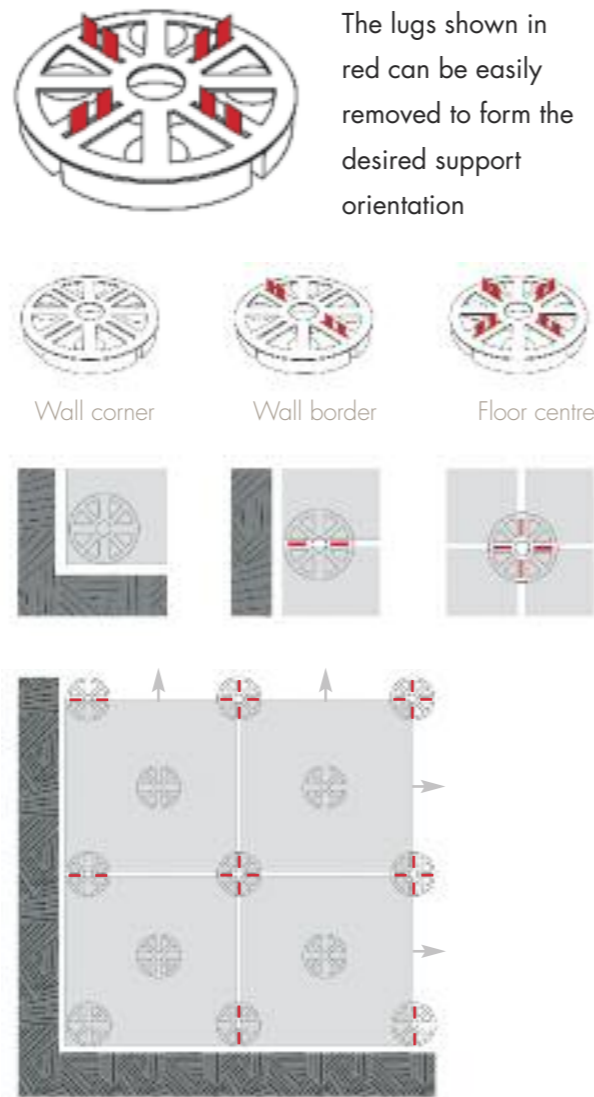
# universal pedestal system

The dry installation system does not require the use of adhesives or grouts. The system is therefore easy to install and remove and does not require acid cleaning after installation.

The substrate onto which the slabs are to be installed, must be solid, water resistant or waterproof; equipped with four spacers to allow adequate joints between adjacent tiles.

The edges must fit snugly to the borders to prevent lateral movement. Simply remove the plastic lugs from the top of the pedestal to create a flat support. We recommend to bond the outer two rows of tiles to the pedestals.

For commercial floating installation, we recommend the use of a fifth foot central to the slab in order to uniformly distribute the loads applied to the foot plan itself.



## Product checklist

Type	Height	Pcs/box
Fixed supports	9mm	250
	15mm	200
Fixed head pedestal	22-30mm	25
Adjustable self levelling pedestals	35-55mm	40
	55-70mm	40
	70-110mm	40
	110-150mm	40
	150-170mm	40
	170-200mm	40

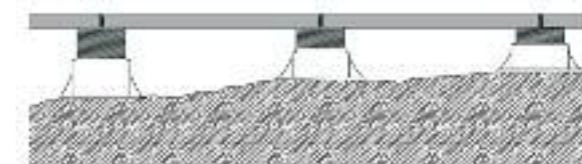
## Pedestals



9mm Rubber      15mm Plastic

Esterno polypropylene supports are suitable for the installation of Esterno panels to varying heights. The 15mm plastic disc is stackable to allow for increased height.

## Adjustable pedestals



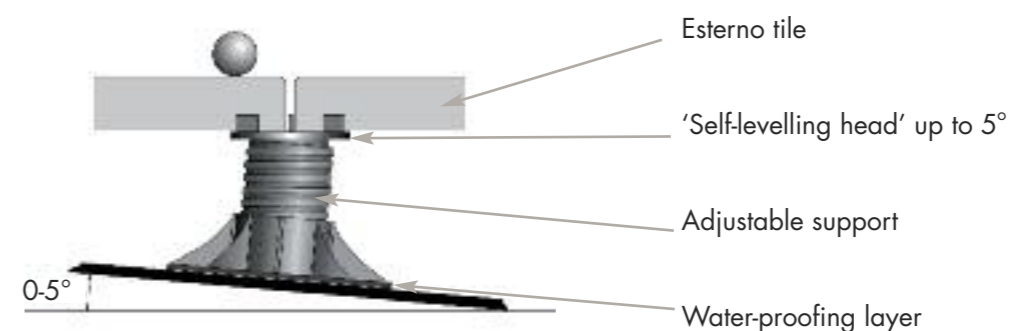
For structures requiring adjustable heights from 35 to 200mm. The adjustable element on the head of the support can be easily reached from above allowing for the correct setting of the height when fixing, without removing the tiles.

## Self levelling 'floating head' pedestals



The Millboard self levelling pedestal comes with a self levelling floating head offering up to 5° of angle for use on uneven solid surfaces.

We recommend 4.5 per M<sup>2</sup> for residential use and 6 per M<sup>2</sup> for commercial use\*

















\* Exact quantity to be clarified by installer. E&OE

## technical features

Classification in accordance with EN14411 ISO 13006 annex G standards B1A with E<0.5%UGL

Average values for the last two years of production

	Technical characteristic	Standard	Esterno Value
	Size	ISO 10545-2	Conforms
	Water absorption %	ISO 10545-3	< 0.1%
	Bending strength	ISO 10545-4	N/A to tiles breaking strength >3000N
	Breaking strength	Spess Thkn 20m	> 10000N
	Deep scratch resistance	ISO 10545-6	< 145mm <sup>3</sup>
	Thermal linear expansion coefficient	ISO 10545-8	~ 6.5 (10 <sup>-6</sup> °C <sup>-1</sup> )
	Thermal shock resistance	ISO 10545-9	Resistant
	Expansion in humidity	ISO 10545-10	< 0.1 mm / m
	Frost resistance	ISO 10545-12	Resistant
	Resistance to chemical attack*	ISO 10545-13	Resistant
	Static load	EN12825	Centre - >8.0kN Side Centre - >5.5kN Diagonal - >8.0kN
	Breaking load class	EN1399	U14
	Resistance to stains	ISO 10545-14	Cleanable
	Slip resistance test	DIN 51130-51097	R11 A+B

## test results

Static load capacity –	load bearing test Test passed
Vertical load tested on columns/beams	Test passed as stated by the supplier of supports
Test of permanent deformation	Test passed
Length of panel sides	Test passed
Orthogonality of panel	Test passed
Straightness of edges	Test passed
Thickness of panel	Test passed
Warping of panel	Test passed
Vertical bend of panels	Test passed
Difference between outer edge and surface of panel	Test passed
Protection against corrosion	Not applicable – plastic support
Reaction to fire	Not applicable to products for outdoor use
Electrostatic conductivity	Not applicable to products for outdoor use

# GreenScape Company

For Landscape & Geosynthetic Engineering

82, Bakhtiary Street  
Sulaymanyah City  
Kurdistan Region  
Iraq

Tel: +964 (0) 53 319 5567  
Mob: +964 (0) 770 1916556  
+964 (0) 7503350735

Emai: [info@greenscape-ltd.com](mailto:info@greenscape-ltd.com)  
Web: [www.greenscape-ltd.com](http://www.greenscape-ltd.com)

