











STYLISH TILES FOR

DESIGNING OUTDOOR AREAS

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# Advantages

Produced using state-of-the-art manufacturing technology, all **Vilbo***garden* ranges are light- and colour-fast and weather-resistant as well. That's why, even after many years of exposure to the elements, they still look just as good as they did on the first day. Without any need for special cleaning or upkeep, and without subsequent impregnation.

**Vilbogarden** offers a suitable solution for every outdoor concept. The robust tiles are suitable for conven-



tional or loose laying on a range of foundations. In thicknesses of 20 mm, they are ready to meet all the demands of outdoor use. The various functional trims, comprising nosing tiles, corners, border tiles and covers, offer perfection down to the finest details. They are produced as custom items to meet the precise requirements of the given building scenario and are available for all **Vilbogarden** ranges.



#### MATERIAL

**VilboStone**, high-quality, scratch- and abrasion-proof, solid porcelain stoneware, one-piece with a **thickness of 20 mm** 



#### ACCESSIBILITY TO VEHICLES

If installed professionally in **bonded construction**, these tiles can be driven over by vehicles with a permissible gross weight of up to 3.5 t.



### FROST-PROOF

Frost-proof and weather-resistant when laid professionally.



#### **LAYING**

Conventional or loose laying on a range of foundations, also suitable for laying on pile foundations.



#### **COLOUR-FAST**

No changes in colour as a result of sunlight.



#### **EASY TO CLEAN**

Surface protection with **Vilbostone**Plus to prevent against soiling.



#### **NON-SLIP**

Non-slip class R11/B for outdoor areas.



#### **STYLE**

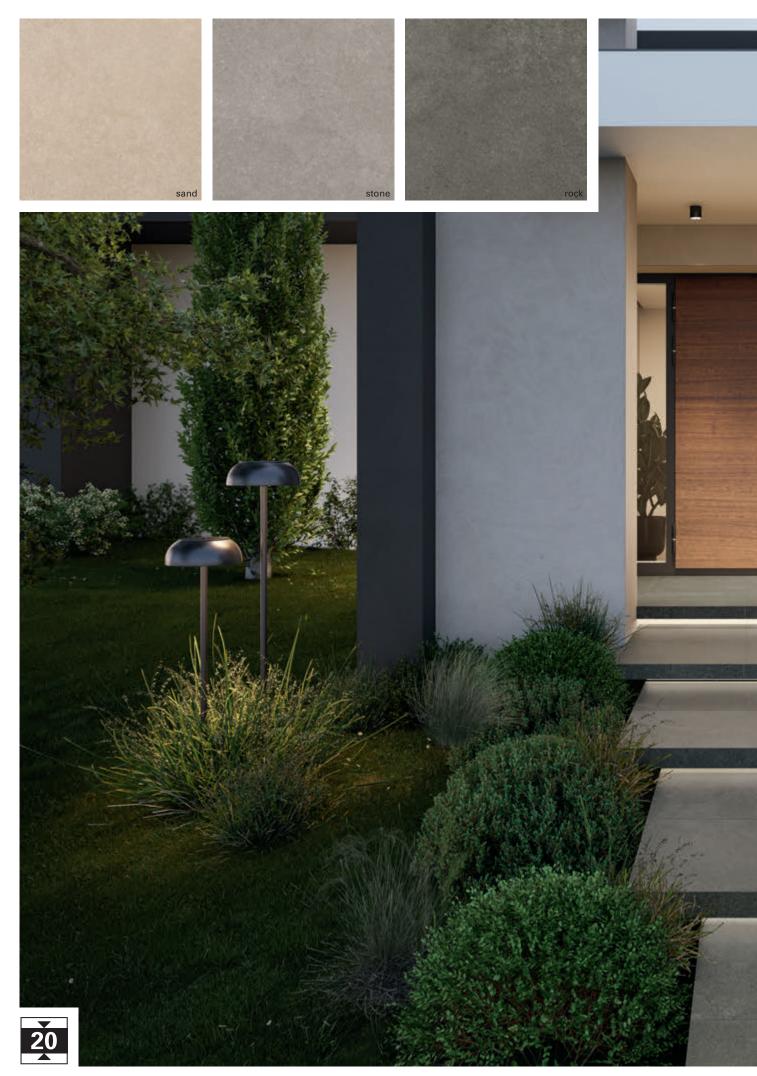
Attractive designs for balconies, terraces, pathways and garden paths, entrances, driveways and carports.















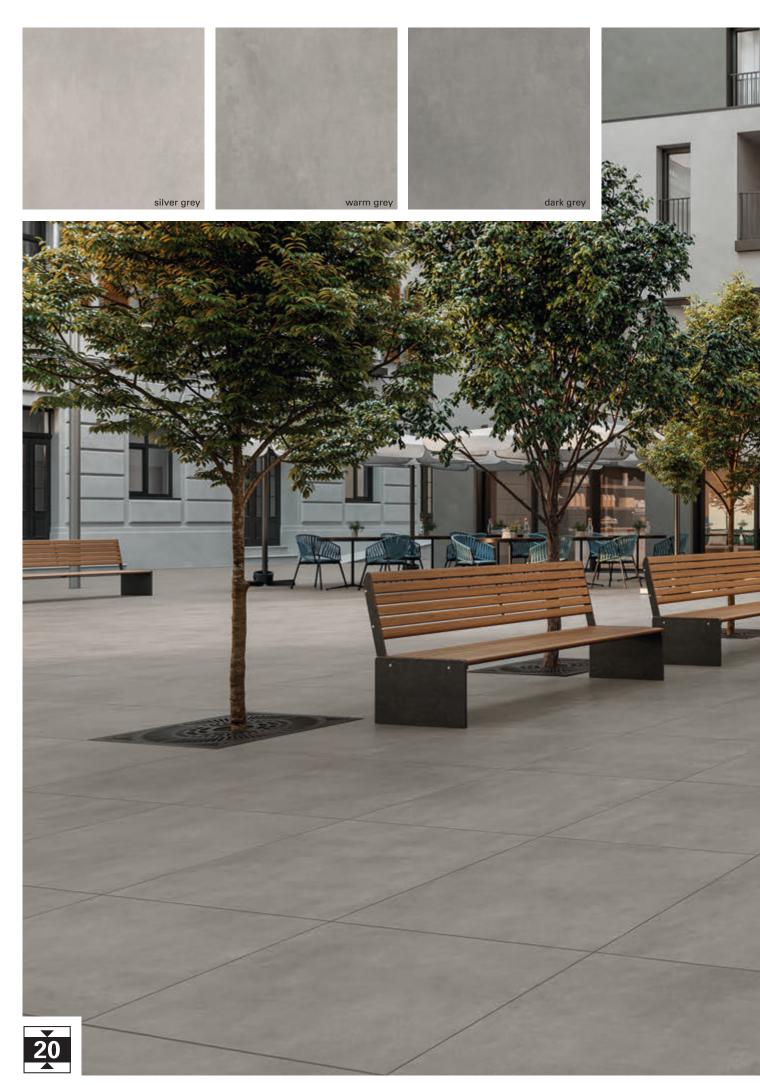




















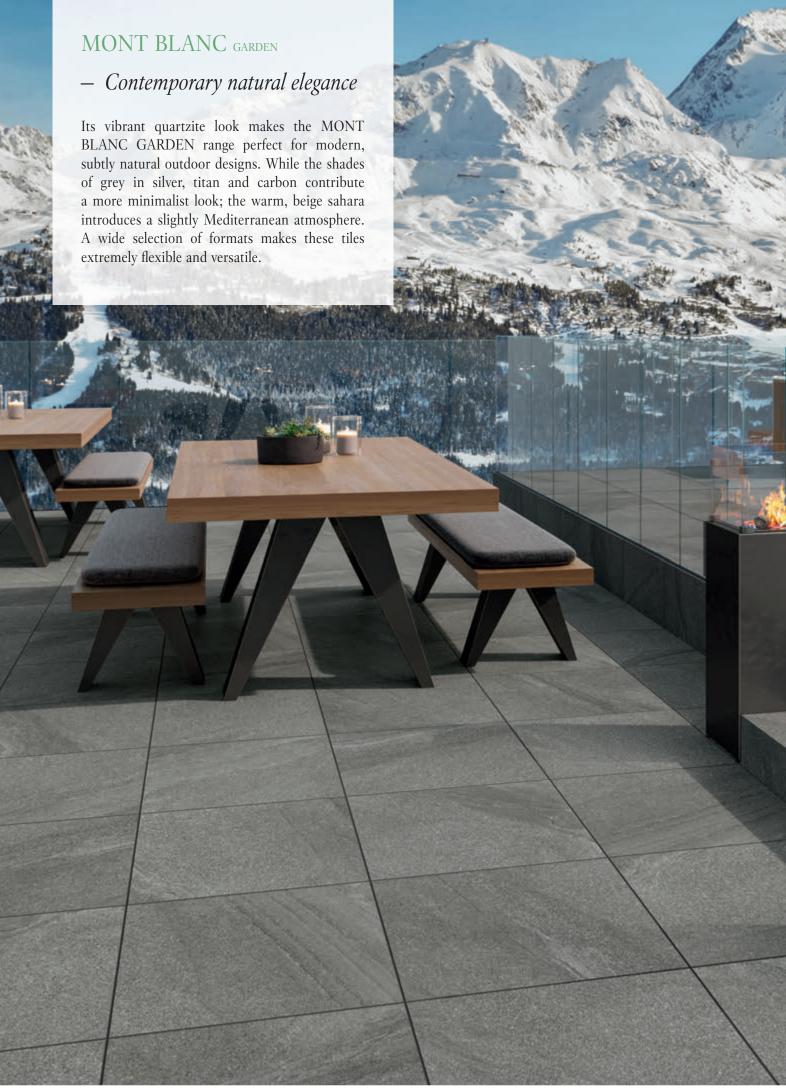












































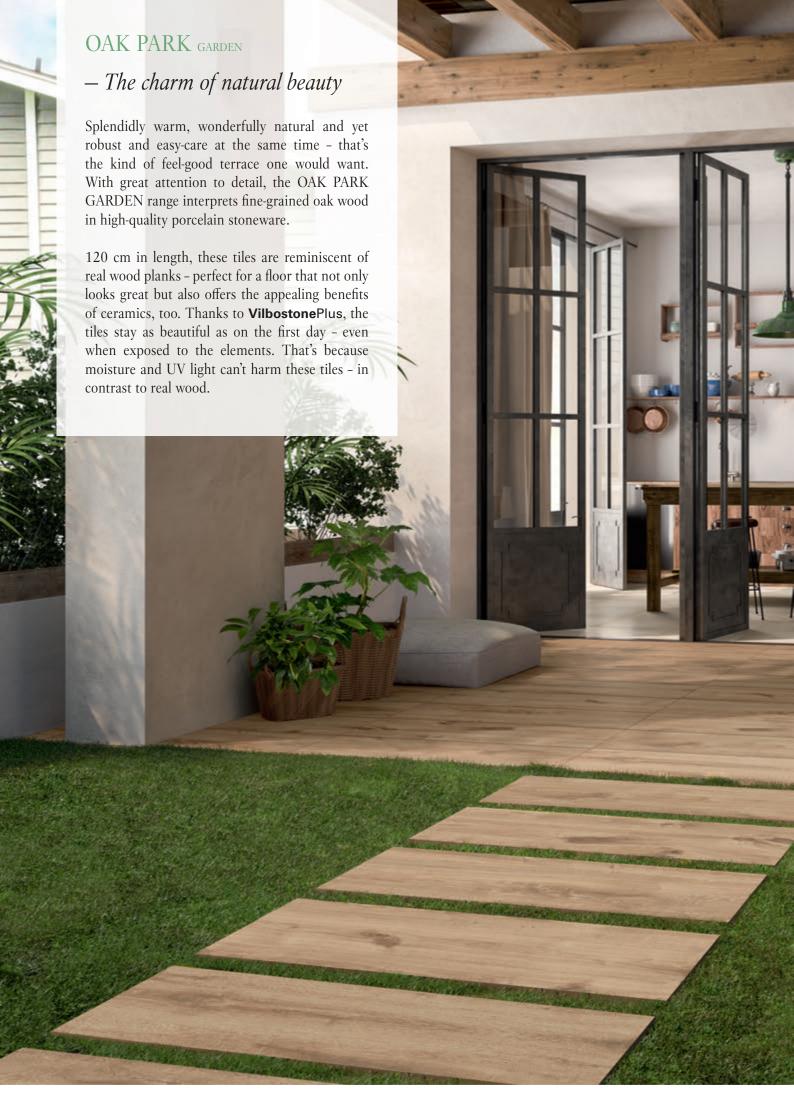
















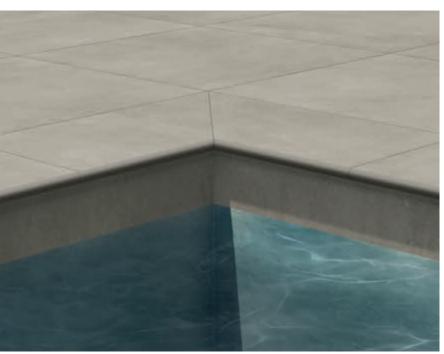








Border tile with drip edge



Border tile, rounded, with drip edge



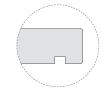


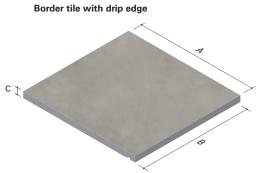
56 Nosing tile

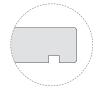


### Border tile with drip edge







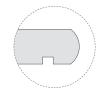


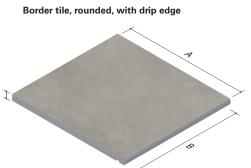
	A (mm)	B (mm)	C (mm)	ArtNr.
	295	595	20	28S3
20	395	795	20	28S4
	395	1195	20	28S1

	A (mm)	B (mm)	C (mm)	ArtNr.
20	595	595	20	28S6
20	795	795	20	28S8

## Border tile, rounded, with drip edge





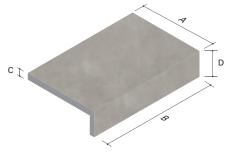




	A (mm)	B (mm)	C (mm)	ArtNr.
20	295	595	20	28R3
	395	795	20	28R4
_	395	1195	20	28R1

	A (mm)	B (mm)	C (mm)	ArtNr.
20	595	595	20	28R6
20	795	795	20	28R8

### Nosing tile



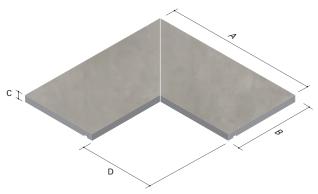
	A (mm)	B (mm)	C (mm)	D (mm)	ArtNr.
	350	595	20	145	28W3
20	350	795	20	145	28W4
_	350	1195	20	145	28W5

### Nosing tile corner (right or left)



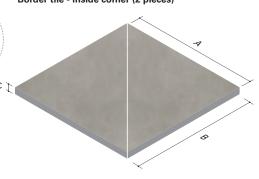
	A (mm)	B (mm)	D (mm)	ArtNr.
	350	595	145	28K3
20	350	795	145	28K4
_	350	1195	145	28K5

### Border tile with drip edge - inside corner (2 pieces)



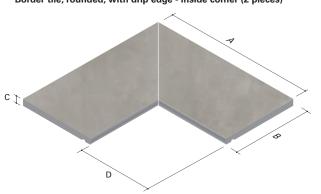
	A (mm)	B (mm)	C (mm)	D (mm)	ArtNr.
	591	295	20	296	28F3
20	791	395	20	396	28F4
	1191	395	20	796	28F1

## Border tile - inside corner (2 pieces)



	A (mm)	B (mm)	C (mm)	ArtNr.
20	591	591	20	28E6
20	791	791	20	28E8

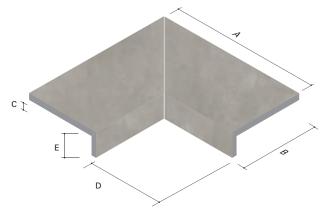
## Border tile, rounded, with drip edge - inside corner (2 pieces)



	A (mm)	B (mm)	C (mm)	D (mm)	ArtNr.
	591	295	20	296	28E3
20	791	395	20	396	28E4
	1191	395	20	796	28E1

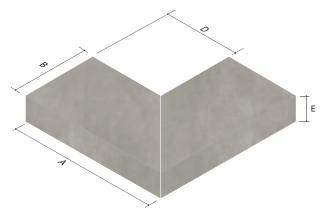
Special order only. Prices and delivery time on request. The stated dimensions are the maximum dimensions. Smaller lengths/heights/widths are possible on request.

#### Nosing tile - inside corner



	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	ArtNr.
	591	295	20	296	145	28V3
20	791	395	20	396	145	28V4
	1191	395	20	796	145	28V1

#### Nosing tile - outside corner



	A (mm)	B (mm)	D (mm)	E (mm)	ArtNr.
	591	295	296	145	28Y3
20	791	395	396	145	28Y4
	1191	395	796	145	28Y1

# CÁDIZ GARDEN









## LUCCA GARDEN









## MEMPHIS GARDEN











# MONT BLANC GARDEN











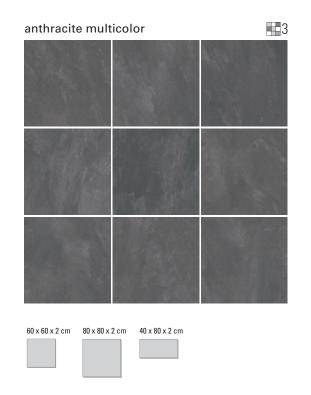
## MY EARTH GARDEN











## OAK LINE GARDEN









## OAK PARK GARDEN







# URBAN JUNGLE GARDEN













				40 x 120 x	2cm		
					80 x 80 x 2 cm	40 x 80 x 2 cm	60 x 60 x 2 cm
			ĺ	🕸 属 🚨 R11 🔼 B	<b>骤</b> 🐷 🗷 R11 🔼 B	🕸 属 🚨 R11 🔼 B	⊛ 属 🚨 R11 🔼 B
				395 x 1195 x 20 mm	795 x 795 x 20 mm	395 x 795 x 20 mm	595 x 595 x 20 mm
CÁDIZ	BU2M		3			Art. 2807	Art. 2803
CÁDIZ GARDEN	BU1M	chalk multicolor	3			Art. 2807	Art. 2803
	ви7М	grey multicolor	4			Art. 2807	Art. 2803
111004	LS70	sand	3		Art. 2882		Art. 2867
LUCCA GARDEN	LS60	stone	3		Art. 2882		Art. 2867
- CAMBEN	LS90	rock	3		Art. 2882		Art. 2867
	MT06	silver grey	2		Art. 2891		Art. 2863
MEMPHIS GARDEN	MT70	warm grey	2		Art. 2891		Art. 2863
GANDEN	MT60		2		Art. 2891		Art. 2863
-	GS20	sahara	3		Art. 2889		Art. 2869
MONT	GS06	silver	3		Art. 2889		Art. 2869
BLANC	GS60	titan	3		Art. 2889		Art. 2869
GARDEN	GS90	carbon	3		Art. 2889		Art. 2869
	RU10	light beige	3		Art. 2816	Art. 2806	Art. 2802
MY EARTH	RU20	beige multicolor	3			Art. 2806	Art. 2802
GARDEN	RU60	grey multicolor	3		Art. 2816	Art. 2806	Art. 2802
1000	RU90		3		Art. 2816	Art. 2806	Art. 2802
	WZ10		3	Art. 2896			
OAK LINE	WZ20		2	Art. 2896			
GARDEN	WZ80	caramel walnut	3	Art. 2896			
	***200			A11. 2000			
OAK PARK	HR20		<b>2</b>	Art. 2821			
GARDEN	HR30	brandy	2	Art. 2821			
URBAN	TC70	greige	2		Art. 2888		
JUNGLE	TC60	grey	2		Art. 2888		
GARDEN	TC90	dark grey	3		Art. 2888		
		Unit of meas	sure	m² 49,50 kg 2,08 pce	m² 47,92 kg 1,56 pce	m² 48,94 kg 3,31 pce	m² 48 kg 2,78 pce
		Par	box	0,96 m² 47,52 kg 2 pce	0,64 m² 30,67 kg 1 pce	0,64 m² 31,32 kg 2 pce	0,72 m² 34,56 kg 2 pce
		Par pa	alett	23,04 m² 1140,48 kg 24 box	23,04 m² 1104,12 kg 36 box	17,28 m² 845,64 kg 27 box	21,60 m² 1036,80 kg 30 box
		Min. sales	unit	P (box)	P (box)	P (box)	P (box)
		Calculation	unit	m²	m²	m²	m²

= Rectified

■ = Frostproof DIN EN ISO 10545-12

■ R11 = Anti-slip in workshop areas
■ B = Anti-slip in barefoot areas

1 = 2 = 3 = 4 = Shade variation

## TECHNICAL PROPERTIES

**VilboStone** unglazed porcelain stoneware in acc. with DIN EN 14411, Group BIa (Water Absorption  $E \le 0.5\%$ )

Grouping: Table ZA.1.1 Outdoor floor covering





Characterization	Test according to DIN EN ISO	Requirements	Test result 40 x 80 cm	Test result 60 x 60 cm
Dimensions	10545-2	Compliance to the tolerances required	Passed	Passed
Surface quality	10545-2	min. 95 % free from visible defects	Passed	Passed
Water absorption % by weight	10545-3	≤ 0,5 / individual max. 0,6%	< 0,5	< 0,5
Modulus of rupture in N/mm <sup>2</sup>	10545-4	min. 35 N/mm² individual min. 32 N/mm²	≥ 45	≥ 45
Breaking strength	10545-4	min. 700N (thickness <7,5 mm) min. 1.300N (thickness ≥7,5 mm)	≥ 11.200	≥ 11.200
Breaking load	10545-4	Declared value	≥ 5.700	≥ 11.400
Resistance of impact (Measurement of the rebound coefficient)	10545-5	Declared value	≥ 0,55	≥ 0,55
Resistance to deep abrasion	10545-6	max. 175 mm³	≤ 145	≤ 145
Linear thermal expansion from ambient temperature to 100° C in K <sup>-1</sup>	10545-8	Declared value	Not tested	Not tested
Thermal shock resistance	10545-9	Declared value	Not tested	Not tested
Moisture expansion in mm/m	10545-10	Declared value	Not tested	Not tested
Frost resistance	10545-12	Required	Passed	Passed
Resistance to household chemicals and swimming pool salts	10545-13	min. class B	А	A
Resistance to acids and alkalics - low concentration	10545-13	Declared value	LA	LA
Resistance to acids and alkalics - high concentraton	10545-13	Declared value	HA/HB	HA/HB
Resistance to staining	10545-14	min. class 3	Class 5	Class 5
Release of lead and cadmium	10545-15	Declared value	Not tested	Not tested
Minor differences in colour	10545-16	ΔEcmc < 1.0	Not tested	Not tested
Determination of slip-resistance – commercial area	CEN/TS 16165	Declared value	R11	R11
Determination of slip-resistance – barefoot area	CEN/TS 16165	Declared value	В	В

## LAYING VARIANTS

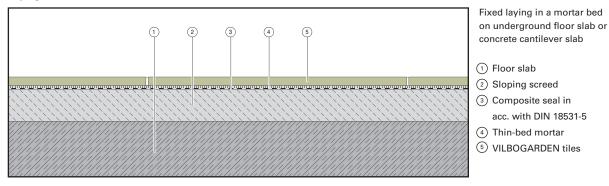
In recent years, ceramic tiles made of unglazed porcelain stoneware, pursuant to DIN 14411, Group BIa (water absorption <=0.5%) and with a thickness of 20 mm, have become indispensable in the selection of materials for the planning and realisation of private and public outdoor areas. The ZDB flyer on 'Outdoor Tiles' provides a complete description of covering designs for ceramic slabs.

Ceramic slabs can accomplish a lot, and in many respects their properties exceed those specified in the regulations and flyers for the materials commonly used in landscape gardening. VILBOGARDEN tiles are perfectly suited for the different installation options. Given their high weight, at a thickness of 20 mm, VILBOGARDEN tiles can be depended upon to remain in place.

If the installation is to be carried out according to ZTV Path Construction, the VILBOGARDEN tiles must be installed in bonded form. With their extremely high breaking load, when used as self-supporting slabs, VILBOGARDEN tiles are the perfect material to use on pile foundations or load-bearing grid structures.

The following pages offer a summary of the most important technical information and recommendations for processing as well as the areas of application and use. These are general recommendations. The local installation scenario and the recognized rules of technology must be factored into any planning and execution. All the information provided here is non-binding.

### Laying on cement screed

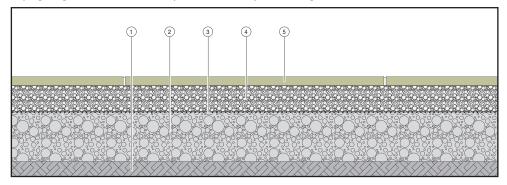


### Areas of application

Terraces, balconies, outdoor areas with low overall height in residential construction, hotels, sports and wellness areas and healthcare facilities, in buildings for culture and education, office and industrial buildings, etc.

Installed appropriately on suitable terrain, these tiles can be driven over by motor vehicles.

## Laying on gravel beds as necessary with contact layer/Bonding course



Loose laying on gravel bed

- 1 Natural soil
- 2 Rough gravel support
- ③ Water-permeable covering
- (4) Gravel bed
- (5) VILBOGARDEN tiles as necessary with contact layer

Unbonded installation	Bonded installation	
Areas of application  Private terraces and paths; outdoor lounges in hotels, sports and wellness areas, buildings with healthcare applications; cultural buildings; schools and kindergartens, etc.	Areas of application  Private and public spaces and paths, garage driveways, private car parking spaces, etc.	
Paving NOT suitable for vehicle traffic.	Paving SUITABLE FOR VEHICLE TRAFFIC outside of road traffic for vehicles with a permissible gross weight of up to 3.5 t.  Can occasionally be driven over by vehicles with a permissible gross weight of up to 20 t with wheel loads of max. 5 t, e.g. for care and maintenance work.	
1 natural/load-bearing soil	1 natural/load-bearing soil	
② Bearing course/frost-protection layer	② Bearing course/frost-protection layer	
③ water-permeable covering	③ If necessary water-permeable covering - depending on the load	
(4) gravel bed without binder, water-permeable	Drainage concrete, thickness in accordance with load (if necessary additional drainage concrete for high loads)	
(5) VILBOGARDEN tiles 20 mm with border, if necessary contact layer	(5) VILBOGARDEN tiles 20 mm with contact layer (Flex adhesive) largely full-surface, applied only to the backs of the tiles	
Joints: unbonded, water-permeable sand joint, 3-5 mm or bonded, water-permeable joint with binder consisting of cold-curing resin or polybutadiene as permeable joint* 3-5 mm  !! Movement joints *suitable to thermal load/expansion.	Joints: bonded, water-permeable joint with binder consisting of cold-curing resin or polybutadiene as permeable joint*  3-5 mm  !! Movement joints *suitable to thermal load/expansion.	
Slope: Surface slope of at least 2%	Slope: Surface slope of at least 2%	

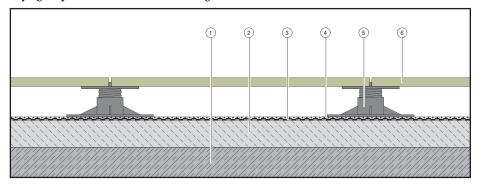
#### Recommendations:

- Installing joint junctions secures slabs loosely installed in a gravel bed.
- In the case of loose installation, a border must be installed at the free ends.
- Junctions to buildings or fixed elements must take installation of spacing joints into account.

### Technical rules and information

ZDB flyer entitled 'Belagskonstruktionen mit Fliesen und Platten außerhalb von Gebäuden' ('Outdoor Tiled and Paved Coverings')

### Laying on pile foundations or mortar bags



Loose laying on pile foundations or mortar bags on underground floor slab or concrete cantilever slab

- 1 Uncovered floor
- Sloping screed
- (3) Seal in accordance with DIN 18531-5
- 4 Protective mat
- 5 Pile foundations / mortar bags
- 6 VILBOGARDEN tiles

Load-bearing capacity of the tiles with 20-mm thickness Format 60 x 60 and 80 x 80, breaking load/strength of 13,500-15,000 N



Tiles in 60 x 60-cm format can be subjected of loads of up to 250 kg with 4 pile foundations at the corners.



Tiles in 80 x 80-cm format can be subjected to loads of up to 250 kg with 4 pile foundations at the corners and an additional pile foundation in the middle.



Tiles in rectangular formats of  $40 \times 80$  and  $40 \times 120$  cm can be subjected to loads of up to 200 kg with 4 pile foundations at the corners and one at each of the long sides.

Installations on roof terraces must take wind loads into account. Suitable structural elements must be installed, e.g. roof parapets and/or special constructions offered by providers of pile-foundation systems. Taking the load distribution into account, it is possible to set up whirlpools, decorative water basins, planters, etc., within the scope of the disclosures on load-bearing capacity provided above, if carried out correctly following a review of the installation scenario on site. Loads above and beyond these will require special measures and consultation of a structural planner.

The quantity and load specifications shown here are for information purposes only. As the number of pile foundations depends on the recommendations of the system manufacturers and the local installation scenario, V & B Fliesen GmbH can assume no liability for the installed overall construction.

### General information for usage

Planters, furniture and umbrellas must have a bearing surface of at least  $250 \text{ cm}^2$  ( $16 \times 16 \text{ cm}$ ) or, for 4 bearing surfaces, at least  $3 \times 3 \text{ cm}$  per bearing.

For smaller bearing surfaces, the possible total weight is reduced. Objects must be placed in such a way as to ensure even distribution, so that the entire weight does not first rest on a point or an edge. When using objects with metal feet, the tiles must be protected through underlayment of softer, load-bearing buffers, e.g. made of plastic.

#### Recommendation

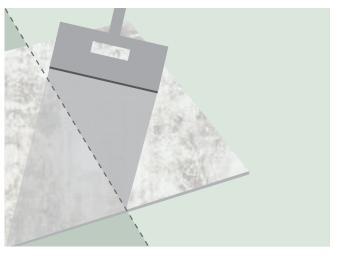
In the event of particular safety requirements, a suitable glass-fibre mesh, for example, can easily be applied to the underside of the tiles.

## General

On account of their properties, tiles are considered to be easy to clean. The cleaning methods and cleaning agents must, however, be adapted to the type of floor and local conditions.

It should be noted that hydrofluoric acid and related substances are able to attack or destroy the surface of porcelain stoneware tiles.

Consequently, no cleaning agents containing hydrofluoric acid are to be used!



Insusceptible to staining and soiling

## **Vilbostone**Plus

During the manufacturing process for coloured porcelain stoneware, the unglazed ceramic is provided with the **Vilbostone**Plus finish, markedly reducing the tiles' susceptibility to staining and soiling. The porcelain stoneware produced with **Vilbostone**Plus ensures high resistance to mechanical strain, chemicals, wear and abrasion and is particularly easy-care.

## Cleaning

Final cleaning after tiling / Basic cleaning	Product and dosage	Cleaning equipment		
Loose dirt	-	Broom and vacuum cleaner		
Cement film, mineral soiling, such as lime- scale deposits, soap residue	Acidic cleaner (available from specialist retailers)	Sponge, scrubbing brush, brush, cloth, microfibre cloth		
Grease, oils, waxes, cosmetics, shoe marks	Alkaline cleaner (available from specialist retailers)	Sponge, scrubbing brush, brush, cloth, microfibre cloth		
Routine cleaning				
Normal dirt, such as dust, light dirt, street dirt	Neutral cleaning agents (available from specialist retailers)	Broom and vacuum cleaner Sponge, scrubbing brush, brush, cloth, microfibre cloth		

Please note: All of the information we provide about cleaning, care and removing stains from ceramic tiles is based on the latest knowledge and material research. It is, however, of a general nature and cannot cover every single eventuality. Therefore, please observe the instructions provided by the cleaning agent manufacturer.

## SUSTAINABLE BUILDING

Acting in harmony with Nature is a clear priority for V&B Fliesen GmbH. Our daily business is based on extremely high standards where quality, efficiency and environmental friendliness are concerned. And we can only preserve what we love for future generations by trea-

ting our environment with respect. That's why we think it's important to be on the cutting edge. Not just with regard to tile technology, but above all in terms of environmental protection!





## Ecological, environmentally friendly production

Our tiles have been awarded the Environmental Product Declaration (EPD) label by the IBU (Institut für Bauen und Umwelt e.V.). The Environmental Product Declaration provides relevant, verifiable and comparable information on the environmental impact of products. This certification allows architects and planners to utilise our products in all properties that have been certified as satisfying the BREEAM, LEED, DGNB or other comparble international requirements for sustainable building.



## V & B Fliesen GmbH

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04/2023 Shades and dimensions subject to the usual tolerances. We reserve the right to make technical modifications to the range and alter colours.

