

RAKO.





More information about the laying of tiles
into lawns, gravel or on supports can be
found at www.rako.eu





Exterior system solutions



public
spaces



paths/walkways



garden
and yard



parking place



swimming pools
and surroundings



terrace
and balcony

Properties of **RAKO OUTDOOR** files



highly sintered ceramic matterial with
a shard thickness of 20 mm, 30 mm



rectified edge
with modified facet

R11/B

non-slip surface R11/B
for higher safety feeling



easy installation with the possibility
of removal tiles for possible repairs,
servicing, etc.



100% frost resistant material
to temperature changes



incomparably better cleanability
in comparison to concrete tiles,
suitable high-pressure cleaning



environmentally friendly product with
a low load factor environmental, EPD,
LEED, Ecolabel certification



60×120

R11/B

v3

R

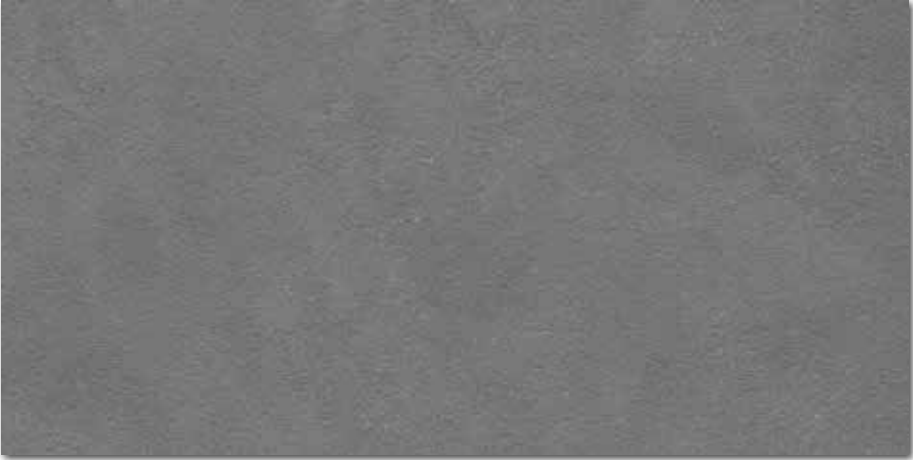
20mm



DARV6790
PEI 5
relief matt
white-grey



DARV6791
PEI 4
relief matt
grey



DARV6792
PEI 4
relief matt
black



60×120

R11/B

v3

R

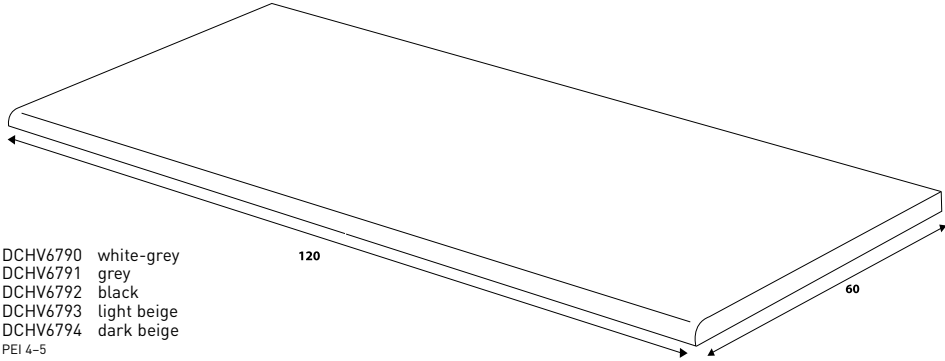
20mm



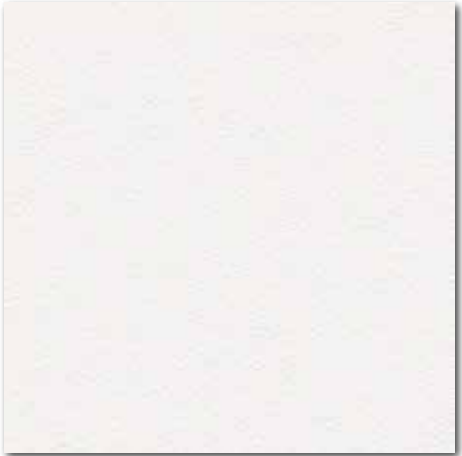
DARV6793
PEI 5
relief matt
light beige



DARV6794
PEI 4
relief matt
dark beige



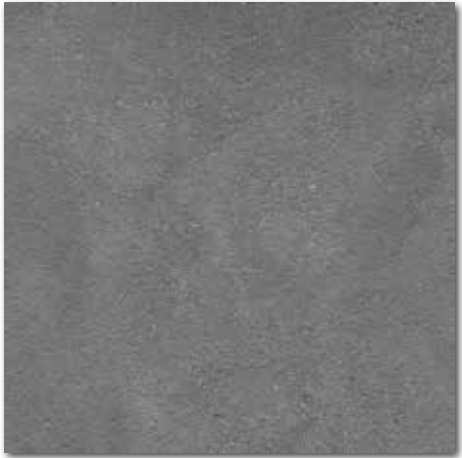
DCHV6790 white-grey
DCHV6791 grey
DCHV6792 black
DCHV6793 light beige
DCHV6794 dark beige
PEI 4-5
relief matt



DAR66790
PEI 5
relief matt
white-grey



DAR66791
PEI 4
relief matt
grey



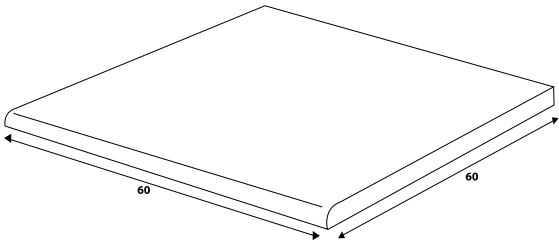
DAR66792
PEI 4
relief matt
black



DAR66793
PEI 5
relief matt
light beige



DAR66794
PEI 4
relief matt
dark beige



DCH66790 white-grey
DCH66791 grey
DCH66792 black
DCH66793 light beige
DCH66794 dark beige
PEI 4-5
relief matt

© ✖ 🛠

60x60

R11/B

v3

R

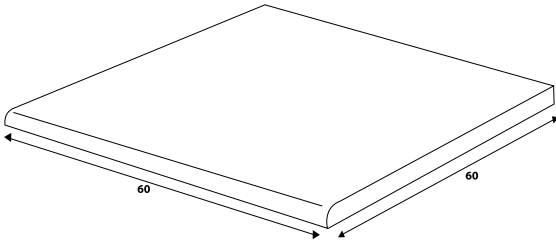
20mm



DAR66850
PEI 5
relief matt
color **ale** | beige



DAR66851
PEI 4
relief matt
color **cognac** | brown



DCH66850 color **ale** | beige
DCH66851 color **cognac** | brown
PEI 4-5
relief matt





60×120

R11/B

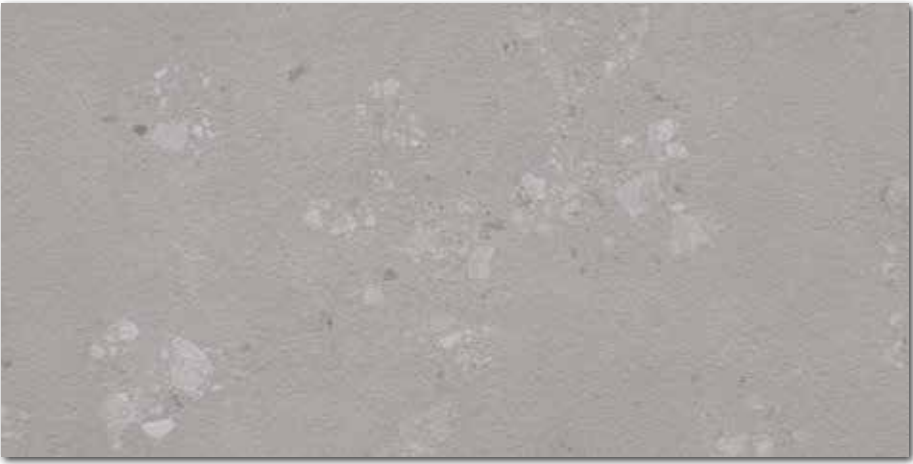
v3

R

20mm



DARV6858
PEI 5
relief matt
color **dune** | beige



DARV6857
PEI 4
relief matt
color **ash** | dark grey



60×120

R11/B

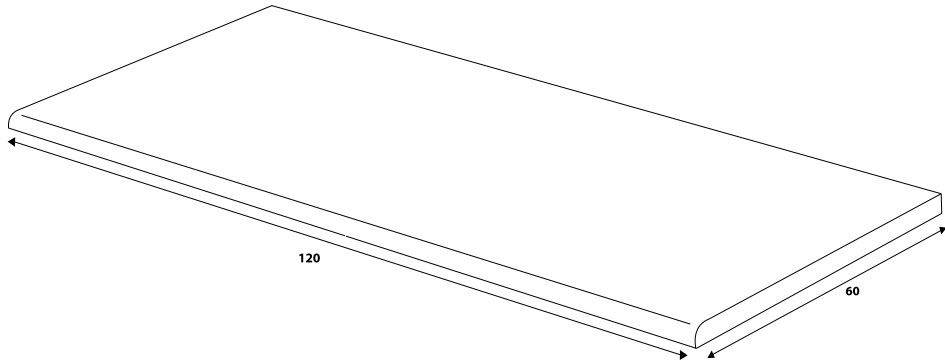
v3

R

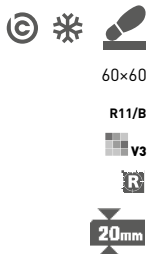
20mm



DARV6856
PEI 5
relief matt
color **cement** | grey



DCHV6856 color **cement** | grey
DCHV6857 color **ash** | dark grey
DCHV6858 color **dune** | beige
PEI 4-5
relief matt



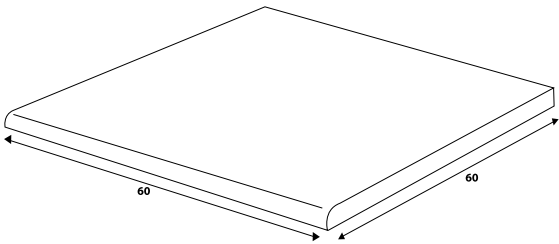
DAR66858
PEI 5
relief matt
color **dune** | beige



DAR66856
PEI 5
relief matt
color **cement** | grey



DAR66857
PEI 4
relief matt
color **ash** | dark grey



DCH66856 color **cement** | grey
DCH66857 color **ash** | dark grey
DCH66858 color **dune** | beige
PEI 4-5
relief matt



60×120

R11/B



DARV6876

relief matt

color **day** | ivory



DARV6877

relief matt

color **sunrise** | beige



60×120

R11/B



DARV6874

relief matt

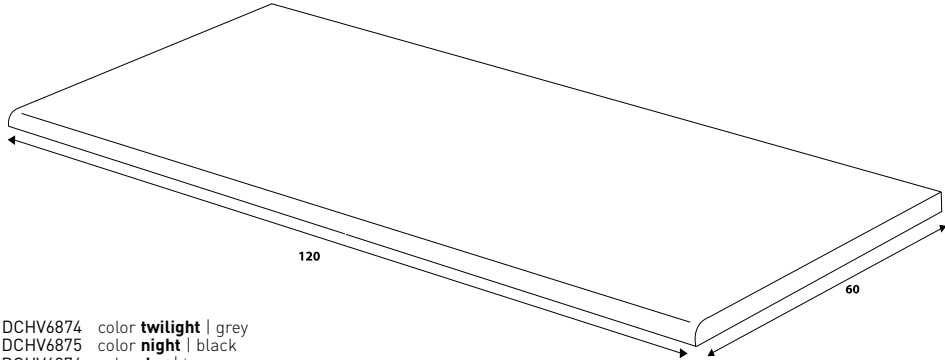
color **twilight** | grey



DARV6875

relief matt

color **night** | black



DCHV6874 color **twilight** | grey
DCHV6875 color **night** | black
DCHV6876 color **day** | ivory
DCHV6877 color **sunrise** | beige
relief matt



DAR66876
relief matt
color **day** | ivory



DAR66874
relief matt
color **twilight** | grey



DAR66877
relief matt
color **sunrise** | beige



DAR66875
relief matt
color **night** | black



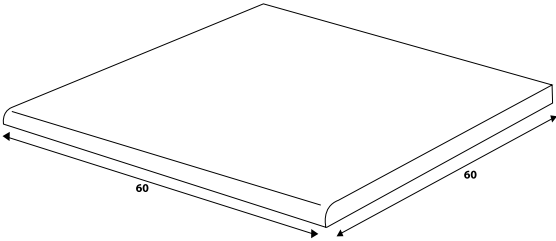


60x60

R11/B



20mm



DCH66874 color **twilight** | grey
DCH66875 color **night** | black
DCH66876 color **day** | ivory
DCH66877 color **sunrise** | beige
relief matt



DAR66585
relief matt
ivory



DAR66586
relief matt
beige



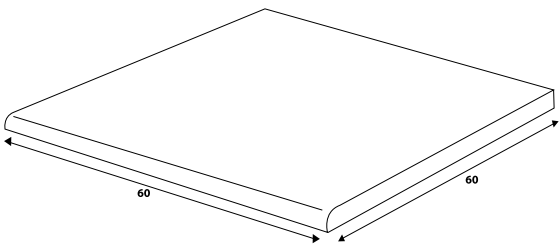
DAR66589
relief matt
beige-grey



DAR66587
relief matt
grey



DAR66588
relief matt
black



DCH66585 ivory
DCH66586 beige
DCH66587 grey
DCH66588 black
DCH66589 beige-grey
relief matt



60x60

R11/B

v3

R

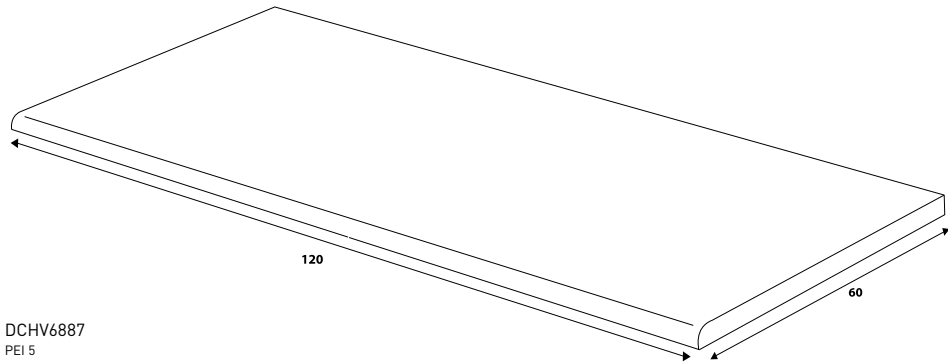
20mm



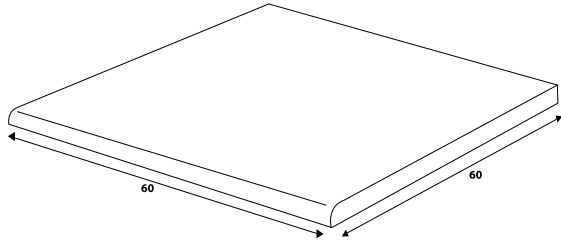
DAKV6887
PEI 5
matt



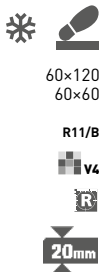
DAK66887
PEI 5
matt



DCHV6887
PEI 5
matt



DCH66887
PEI 5
matt
color **nature** | beige-grey





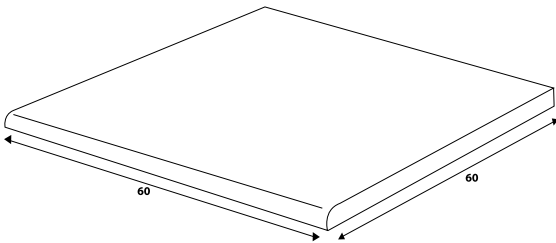
DAR66787
 relief matt
 beige



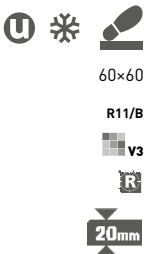
DAR66789
 relief matt
 black



DAR66788
 relief matt
 light grey



DCH66787 beige
 DCH66788 light grey
 DCH66789 black
 relief matt





60×120

R11/B



DAKV6896
PEI 5
matt
color **bloom** | beige



DAKV6897
PEI 4
matt
color **nut** | beige-brown

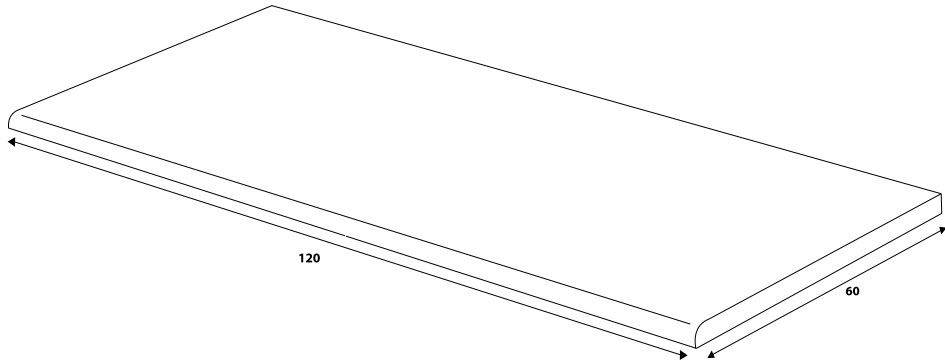


60×120

R11/B



DAKV6898
PEI 4
matt
color **bark** | brown



DCHV6896 color **bloom** | beige
DCHV6897 color **nut** | beige-brown
DCHV6898 color **bark** | brown
PEI 4-5
matt



60×120

R11/B

v3

R

20mm



DARV6735
PEI 5
relief matt
beige



DARV6737
PEI 5
relief matt
grey



60×120

R11/B

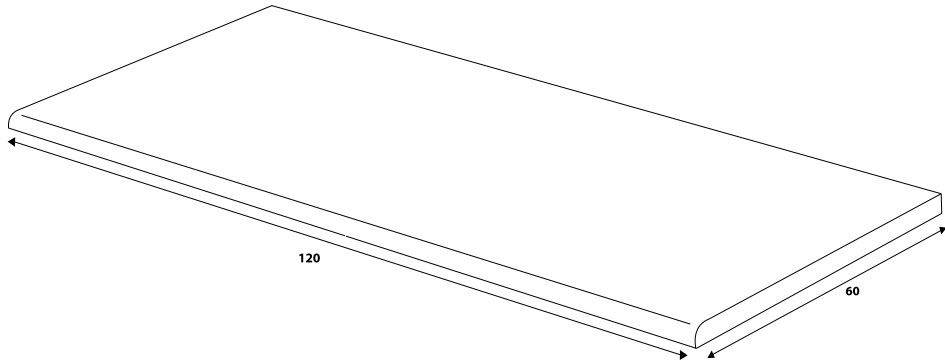
v3

R

20mm



DARV6738
PEI 4
relief matt
dark grey



DCHV6735 beige
DCHV6737 grey
DCHV6738 dark grey
PEI 4-5
relief matt



DAR66735
PEI 5
relief matt
beige

20mm

DAR69735*
PEI 5
relief matt

30mm



DAR66736
PEI 4
relief matt
brown

20mm



DAR66737
PEI 5
relief matt
grey

20mm

DAR69737*
PEI 5
relief matt

30mm



DAR66738
PEI 4
relief matt
dark grey

20mm

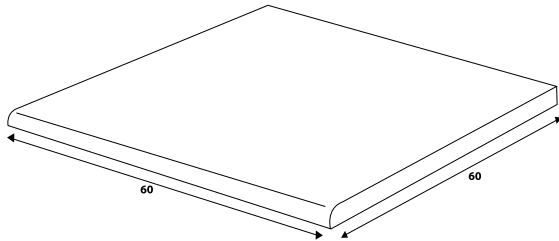
DAR69738*
PEI 4
relief matt

30mm



DAR66739
PEI 4
relief matt
black

20mm



DCH66735 beige
DCH66736 brown
DCH66737 grey
DCH66738 dark grey
DCH66739 black
PEI 4-5
relief matt

20mm

* Available while stocks last



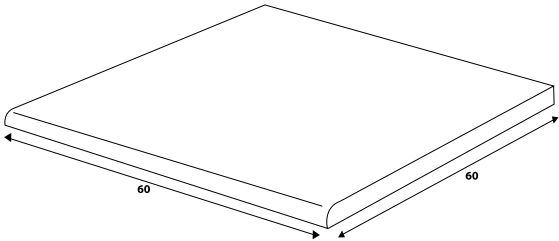
DAK66899
 PEI 5
 matt
 color **rice** | white-grey



DAK66901
 PEI 5
 matt
 color **malt** | beige

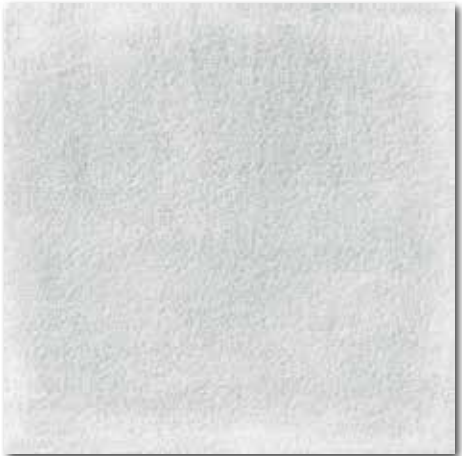
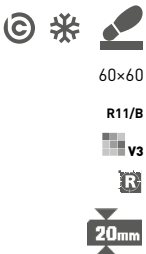


DAK66900
 PEI 4
 matt
 color **grit** | grey



DCH66899 color **rice** | white-grey
 DCH66900 color **grit** | grey
 DCH66901 color **malt** | beige
 PEI 4-5
 matt





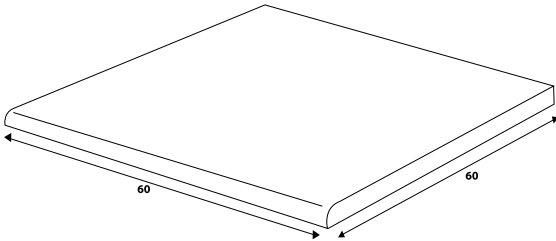
DAR66741
PEI 5
relief matt
grey



DAR66742
PEI 4
relief matt
dark grey



DAR66743
PEI 5
relief matt
beige



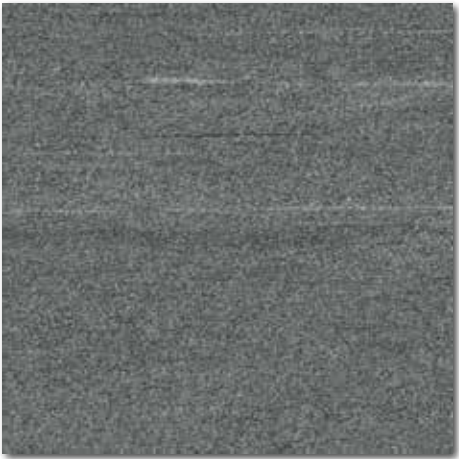
DCH66741 grey
DCH66742 dark grey
DCH66743 beige
PEI 4-5
relief matt



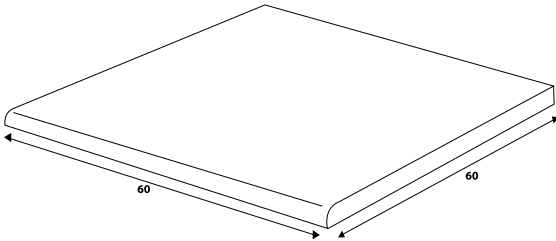
DAR66846
PEI 5
relief matt
color **fog** | grey-white



DAR66847
PEI 4
relief matt
color **natural** | grey



DAR66848
PEI 4
relief matt
color **pepper** | dark grey



DCH66846 color **fog** | grey-white
DCH66847 color **natural** | grey
DCH66848 color **pepper** | dark grey
PEI 4-5
relief matt

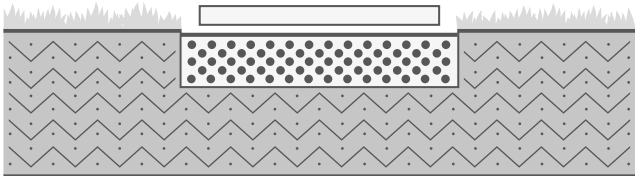


Laying into lawns

Durable solution of areas of gardens, garden paths, or pergolas intended as a final walking floor surface. When laying ceramic tiles into lawns, we use gravel (crushed aggregate), which, unlike sand, does not absorb water or expand during frost.

A gravel layer with a size of 4-8 mm should reach a height of 50 mm. RAKO OUTDOOR floor tiles with a thickness of 2 cm, but their movement is bordered with the surrounding soil and gravel, and seamlessly connects to lawns or pebbles in space.

Laying info lawn for garden treads



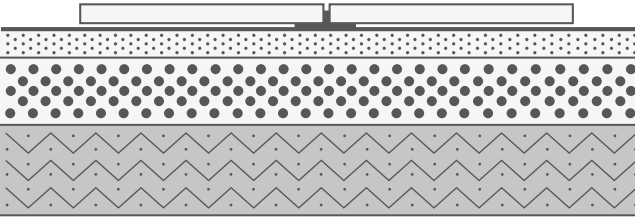
- 20 mm floor tiles | lawn
- 50 mm gravel
- soil

Laying into gravel

Environmentally-friendly solution of areas intended as final walking floor surfaces of terraces, pavements, pergolas, or parking spaces. Thanks to the permeable base, water is returned into the subsoil and not removed from the landscape through drains and sewers. Before laying, remove the soil.

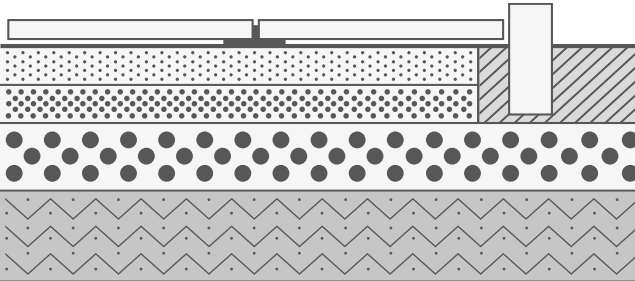
The bottom of the trench should have the required slope of 2% from the facility, and base layers should have the same thickness at all points of the surface. The laying of floor tiles should copy the required slope of 2% so that water and dirt are better drained from the surface.

Laying into gravel for walking surfaces



- 20 mm floor tiles (defined by 3-4 mm spacers for gravel)
- 50 mm gravel 4-8 mm
- 200 mm compacted gravel 8-16 mm
- compacted soil

Laying in gravel for parking spaces (up to 3.5 t)



- 20 mm floor tiles (defined by 3-4 mm spacers for gravel)
- 50 mm gravel 4-8 mm
- 50 mm compacted gravel 8-16 mm
- 200 mm compacted gravel 16-32 mm
- compacted soil
- curb (lines the laying and is installed in a 100 mm high concrete bed)

Laying of RAKO OUTDOOR floor tiles into gravel for final walking surfaces



1 | Preparation

You will need coarse gravel with a size of 8-16 mm, finer gravel with a size of 4-8 mm, pebbles, spacers for outdoor use with a width of 3-4 mm, a rubber mallet, spirit level, smoothing beam, and RAKO OUTDOOR tiles with a thickness of 2 cm.



2 | First sub-base layer

Remove the soil under the tiles to a depth of 20 cm, with a slope of 2 % from the facility, and compact the soil with a vibrating device. Apply gravel with a size of 8-16 mm to a height of 20 cm, and compact it again.



3 | Second sub-base layer

In the second layer, apply finer gravel with a size of 4-8 mm to a height of approximately 4-5 cm. The gravel layers should have the same height.



4 | Base preparation

Spread the gravel evenly with a smoothing beam, but no additional compaction is required.



5 | Tile placement

Place the tiles into gravel and fix them in place with a rubber mallet at a slope of 2 % from the facility.



6 | Ensuring regular joints between the tiles

Place gravel spacers into the corners to adjust joint of width of 3-4 mm. This will ensure continuous water drainage and evaporation of moisture from the base.



7 | Surface

In this manner, lay gradually the tiles on the entire surface, and continuously check the flatness of the tiles using a spirit level. Fix the surface with a rubber mallet, or apply fine gravel to correct the sunken areas, as required.



8 | Bordering

Finally, decorate the edges of the tiled surface with pebbles, or grass. You can also use fine silica sand to fill joints.

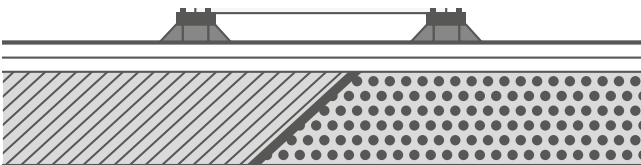
Laying on pedestals

Laying on pedestals is a dry laying technique, based on the use of a system of supports, the so-called pedestals for terraces, balconies, roofs or public areas.

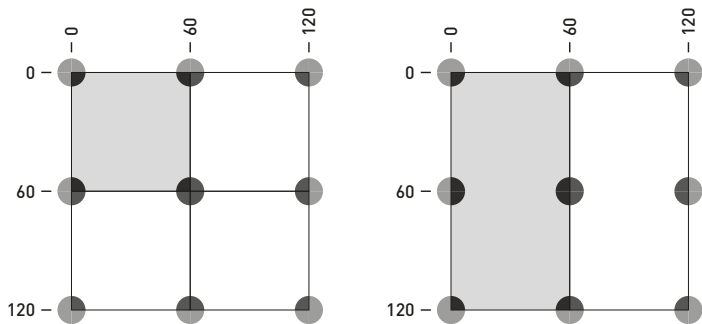
In case of pedestals, we can either choose adjustable (screwing) or fixed pedestals (layered onto each other). Thanks to adjustable pedestals, we can level-out e.g. slanting terraces into horizontal surfaces. We do not recommend horizontal laying for pedestals with fixed height. For tiling on pedestals, we use the RAKO OUTDOOR tiles with the thickness of 2 cm.

Laying on pedestals is not intended for being loaded with cars, it is only suitable for walking traffic.

Laying on pedestals for walking surfaces on a concrete foundations



- 20 mm tiles
- pedestals
- waterproofing (PVC foil, SBS asphalt strips, final waterproofing screed)
- geotextiles
- concrete or compacted gravel



Assembly diagrams for pedestals

Visual laying scheme for 60x 60x 2 and 60x 120x 2 cm:
Outdoor tile installation on adjustable pedestals for a stable, level surface.



Laying of RAKO OUTDOOR floor tiles on pedestals



1 | Preparation

The laying on adjustable pedestals is a method of tile laying with a thickness of 2 cm and the use of adjustable supports, or so-called "pedestals". Prepare the required number of pedestals, including slope correctors and spacers, rubber washers, stops or skirting clips, RAKO OUTDOOR ceramic tiles with a thickness of 2 cm, a spirit level, and a cutter. PVC waterproofing foil with reinforcing grids (min. thickness of 1.5 mm) is recommended as a base. To reduce the risk of foil puncture, use PVC foil and underlay it with geotextiles. The concrete base plate should have a slope of 2 % from the facility. Installation of the foil should be performed by a professional worker.



3 | Pedestal height adjustment

Place the pedestal into the slope corrector. Adjust the required height of the pedestals by turning according to the determining height of the pedestal at the highest point of the terrace, or balcony.



2 | Slope adjustment

By turning the slope corrector, adjust the horizontal base under the pedestals. In this manner, the slope of the base is adjusted up to 5 %. As the inclination angle and the direction of slope always differ, each pedestal must be adjusted individually. The supports equipped with telescopic swinging heads are levelled automatically up to a slope of 10 %.



4 | Placement of spacers

Place the dilatation spacers on the pedestals, and adjust the number of dilatation spacers by cutting, or breaking out as needed. The spacers define the joint width, which is necessary for water drainage and evaporation. It is recommend to select the space width of 3 mm as a minimum.



5 | Creating the leading edge of the balcony, or terrace

If there is not a solid edge around the tiles, such as skirting, wall, etc., use the skirting clips to form the leading edge, and place these clips on the head of the pedestals and under them.



6 | Placing the rubber pads on pedestals

Due to the spring and settling action of laid tiles, place rubber pads on the pedestals.



7 | Ensuring the regular distance between the pedestals

Before laying, check the distance between the pedestals to a tile format of 60 x 60 cm. In public buildings, we also insert pedestals under the centres of the tiles.



8 | Laying of tiles

Place a tile on the pedestals. Handling a 16 kg tile is more difficult than handling tiles of common thickness. After laying, check whether the tile is laid horizontally.



9 | Cutting tiles with a thickness of 2 cm

Only electric cutters with guide rails, or water-cooled stand saws, are able to cut embossed tiles with a thickness of 2 cm.



10 | Inserting strips into skirting clips

Insert the cut and ground ceramic strips into the skirting clips, and create the leading edge of the balcony, or terrace.



11 | Finishing the leading edge with a water bar

The finished ceramic leading edge of the balcony seamlessly connects to the finishing profile with a water bar.



12 | Inserting stops between the wall and tiles

Measure individual finish cuttings to the door and balcony wall. To define laying, the stops are used between the balcony wall and tiles. These stops prevent the PVC foil from being cut through the edge of the tile adjacent to the wall.



13 | Final laying

The laying on pedestals is suitable for terraces, balconies, roofs, or public spaces with trouble-free access to drains or waterproofing. The laying on pedestals is not intended for surfaces subject to vehicles driving over them.

