butech

Raised Access Flooring

PORCELANOSA Grupo



PORCELANOSA Grupo



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Raised Access Flooring

The Raised Access Flooring (RAF) system was developed to address the need for concealing a large number of installations, such as telephone and electrical wiring, piping, air conditioning systems, and more, typically found in work areas, technical rooms, and similar spaces. These installations are hidden beneath the system, thanks to the creation of a "technical plenum" that provides immediate and easy access. It also allows for the organized routing of all installations.





System application areas

The use of raised access flooring is highly recommended in areas with a large number of installations passing beneath the floor, offering the advantage of easy and immediate accessibility. Commercial applications: offices, libraries, museums, schools, shopping centres, etc. Technical applications: telecommunications and electrical plants, control rooms, laboratories, data centres, etc.



CITY CUBE NATURE

Advantages of the system

- Ability to conceal all types of unsightly and potentially hazardous cables, pipes, etc., beneath the flooring.
 Enhanced installation efficiency compared to conventional flooring systems (installation rate of about 40 m²/day).
 Easily transportable in case of office relocation.
 Flexibility to reroute services after the floor has been installed.
 Clean installation process without requiring cement, eliminating the generation of debris, dust, noise, etc.





Butech advantages over other raised access floor systems

- Able to withstand a high mechanical load. •
- Ability to combine different structures, as required in each particular case. • Excellent fire reaction performance, demonstrated in laboratory tests. • Very low dimensional tolerances, ensuring perfect panel interchangeability. • Cores made of high-performance materials and extremely high densities. Compliance with UNE EN ISO 9001, guaranteeing quality controls during each

- •
- . stage of the manufacturing process.
- The top surface can accommodate any 60 x 60 ceramic tile by Porcelanosa or • other non-ceramic coverings, such as laminated plastic, linoleum, vinyl, granite, aluminium, steel, carpet, parquet, etc.
- The pieces are protected with a plastic edging to protect the tiles from spalling. • A wide range of complementary products to deliver a high-quality finish. •

Panels with chipboard core

They are made of chipboard bonded with high-performance resin. With a thickness of 38mm and a lower covering made of aluminum, galvanized steel, or plastic, they provide slightly different properties depending on the specific requirements. The panels have a protective plastic edge to protect the edges from chipping.



- 1. Top covering
- 2. Edge protection
- 3. Lower covering
- 4. Wood core

Panels with calcium sulfate core

It consists of a monolithic mineral core made of high-density calcium sulfate. With a thickness of 30 mm available and a lower coating of aluminum or galvanized steel. Similar to wood-core panels, the perimeter of all panels is protected with a plastic edge to prevent chipping.



- 1. Top covering
- 2. Edge protection
- 3. Lower covering
- 4. Calcium sulfate core

Panel with ceramic core

Composed of a core of high-density inert and inorganic material. Available in a thickness of 15 mm. Similar to wood and calcium sulfate panels, the perimeter of all panels is protected with a plastic edge to prevent chipping of the edges. Ideal for wet and humid environments due to its non-absorbent nature (water absorption of 0.05%).



- 1. Top covering
- 2. Edge protection
- 3. Ceramic core







CONCRETE GREY NATURE

Available panel formats

Format 60 x 60 cm

Available in a porcelain finish (including any 59.6 x 59.6 cm floor tile from the PORCELANOSA Group) or with non-ceramic finishes, such as vinyl, plastic laminate, carpet, linoleum, among others.



Format 58 x 120 cm

Available exclusively in a porcelain finish. Each panel consists of three PAR-KER tiles (format: 19.3 x 120 cm) from the PORCELANOSA Group.





AVENUE BLACK NATURE - AVENUE WHITE NATURE

Structure

The structure is made up of pedestals and stringers, which support the floor covering and ensure the necessary height and rigidity.

Pedestals

pedestals determine the floor height according to the project requirements. Each pedestal incorporates a plastic noise-reduction head fitted with four positioning lugs. One of the main advantages of the pedestal system is that it features a 14 mm threaded bolt, adjustable to accommodate different floor height requirements.

Stringers

Manufactured entirely from galvanised steel, these Like the pedestals, the stringers are manufactured entirely from galvanised steel. Their main function is to enhance the floor's stability and strength. They are fitted with noise-reduction strips along their top surface.



In terms of performance, it offers high resistance to vertical and eccentric bending loads, thanks to an M16-section threaded bolt, a 20 mm diameter tube with a 2 mm thickness, internally calibrated to ensure precise coupling with minimal tolerances. This allows for a direct connection between the threaded bolt of the disc base and the tube, without the need for deformable plastic elements.

Depending on the configuration of both the panel and the structure, a resistance to static loads of up to 4,400 kg/m² can be achieved.





How to request a quote for indoor RAF

Required Information:

- •
- •
- •
- •

Once this information is received, Butech will prepare the quote and include a breakdown with recommendations for the quantities of tiles and structure. This should subsequently be reviewed and confirmed by the installation company.

Provide dimensioned plans. Specify the format and finish to be used. Indicate the desired core type (calcium sulphate, porcelain, or wood). Total heights, including the tile finish.















VIP LOUNGE MANISES AIRPORT - VALENCIA



MORSE BEIGE NATURE - MORSE COAL NATURE















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The raised access flooring Outdoor (RAFx) system for terraces has been specifically designed to address the aesthetic challenges posed by slopes in terraces and to conceal installations beneath the surface. This system creates a completely flat surface above the existing terrace floor, effectively concealing the slopes beneath it.

Level differences are corrected using height-adjustable plots, while accumulated water is drained through the open joints of the paved surface and directed along the terrace's waterproofed slopes towards the drain.



System application areas

The use of raised access floor is highly recommended in areas where a significant number of elements need to run beneath the floor, offering the advantage of easy and immediate accessibility.

Advantages of Raised Access Flooring outdoor

- Ability to hide away all unsightly or potentially hazardous cables, pipes, and other elements under the floor.
- Greater installation efficiency compared to conventional flooring systems (installation rate of about 40 m²/day).
- Flexibility to reroute services after the floor has been installed.
- Clean installation without the use of cement, eliminating debris, dust, noise, and other disruptions.





Advantages of Raised Access Flooring outdoor

- corrected using mortar or wedges.
- thermal insulation.
- services.
- floor.
- floor.
- . simultaneously.
- tolerances, wide variety of finishes, durability, and more.

The system allows for the creation of a flat paved surface over sloping masonry floors with height deviations of up to 3%. Height deviations exceeding 2% must be

The air void created under the paved surface generates a continuous flow of air through the pavement joints, preventing condensation build-up and providing

The void beneath the floor can also be used to house cables, pipes, and other

Provides easy access to the space beneath the floor. Avoid using p-404 to bond tiles and plots in areas requiring access to services or working space beneath the

The plenum created by the floor elevation reduces noise transmission to the lower

The system is quick to install since the tiles and supports are installed

Key benefits of PORCELANOSA Grupo flooring: Easy to clean, precise dimensional



ROX BEIGE ANT.

The Outdoor RAF is a type of raised flooring system where special ceramic tiles are placed on PVC plastic pedestals with adjustable height, creating a hollow space between the substrate and the ceramic tiles..

Components of the System

1. Panels for Outdoor RAF

There are two types of Outdoor RAF panels:

Double Piece: Two porcelain tiles from Porcelanosa Grupo adhered together with a hot-melt moisture-reactive adhesive.

20mm Thick Porcelain Tile: A single porcelain tile with a thickness of 20 mm, produced by Porcelanosa Grupo or Butech.

2. Outdoor RAF Structure

Three types of pedestals are available:

1. Fixed Plot:

• Non-adjustable pedestals designed for lower heights. Available in 10, 15, and 20 mm.

2. Normal and Ultra Plot:

- Adjustable pedestals designed for heights above 25 mm.
- Recommended for plank formats.

3. Plot N:

· Stronger pedestals for the most demanding situations.





Characteristics of the pedestals:

- Made of weather-resistant plastic material. •
- width (4 mm).

Pedestal components:

Base: Wide diameter that evenly distributes the system's weight on the substrate. Vástago: Adjustable height to adapt the pedestals to the specific needs of the project. Cabeza: Serves as the support point for the tiles and is equipped with four spacers

that ensure uniform 4 mm joints.

Accessories for STEx installation:

p-404: Polyurethane adhesive to fix the structure to the substrate. Flexible wedges (5mm): Facilitate installation by correcting imperfections in the slab or significant slopes on-site. Polyurethane foam: Adjusts the perimeter tiles, ensuring the system is perfectly

sealed.

Opcional

Levelling key for Plot N: Tool to adjust the pedestal height through the joint after the tiles have been installed. SAP: 100236951

The total height of the pedestals can be adjusted to accommodate different levels according to the project's requirements.



Support the Outdoor RAF tiles, determine the system height, and set the joint





System accessories

End profile for RAFx

Butech's top profile is a solution to hide the aesthetic inconvenience that occurs when a step has to be made with the Raised Floor. This profile, in addition to hiding the edge of the ceramic piece, allows us to anchor a vertical piece to the plot to hide the body of the plots*

Made of aluminum, and with a length of 1200mm, it can be used in thickened tiles (**SAP**: 100280081) with a 20mm depth, and in double-piece tiles (**SAP**: 100290783) with a 23mm depth. For a correct clamping of the vertical piece from its lower part, several units of the Lower Clip (**SAP**: 100253748) will be necessary.

*Option valid only for Plot N





System accessories

Vertical Enclosure Clip

Made of the highest stainless steel quality, and essential to finish a floor with no perimeter wall or enclosure.

These clips have two components: upper clip, fixed to the pedestal head, and lower clip, which goes on a previously cut pedestal base.

The perimeter panels are easily installed with these clips.

For a correct installation, the pedestal base has to be cut as shown in the images.

Only compatible with Plot N.







Туре	Non adjustable - pilled up
Material	Polypropylene with mineral load
Colour	Black
Compression resistance	8.000 kg/unit approximately
Dimensions	100 x 100 mm and 115 mm ${\it 0}$
Heights	10 mm 15 mm 20 mm
Separation between tiles	4 mm





OFFICES PROJECT - STERLING ARCHITECT: DEMIAN WILBUR ARCHITECTS PHOTOGRAPHY: LA DEXON PHOTOGRAPHIE



Plots adjustables (Normal Plot)

Туре	Adjustable
Material	Polypropylene with mineral load
Colour	Black
Compression resistance	750 kg/unit approximately
Dimensions	Lower support base \varnothing 150 mm Upper head \varnothing 92 mm
Thread type	Double trapezoidal thread
Heights	Minimum 25 mm Maximum 670 mm
Slopes	From flat to 2 %
Separation between tiles	4 mm





Plots adjustables (Ultra Plot)

Туре	Adjustable
Material	Polypropylene with mineral load
Colour	Black
Compression resistance	1.000 kg/unit approximately
Dimensions	100/130: Lower support base Ø 150 mm Upper head Ø 92 mm Rest of the heights: Lower support base Ø 160 mm Upper head Ø 140 mm
Thread type	Double trapezoidal thread
Heights	Minimum 100 mm Maximum 670 mm
Slopes	From flat to 2 %
Separation between tiles	4 mm





COMMERCIAL PROJECT - FUENGIROLA PHOTOGRAPHY: RAFAEL RAEZ



Plots adjustables (Plot N)

Туре	Adjustable
Material	Polypropylene with mineral load
Colour	Black
Compression resistance	2.800 kg/unit approximately
Dimensions	Lower support base \varnothing 205 mm Upper head \varnothing 150 mm
Thread type	Double trapezoidal thread
Heights	Minimum 30 mm Maximum 670 mm
Slopes	From flat to 3 %
Separation between tiles	4 mm







BOTTEGA ACERO
Porcelain Paver

THIC'KER 20 MM

The advances in manufacturing techniques and new landmark frontier technology brought the possibility of producing porcelain tiles in a much greater thickness as traditionally, enabling these tiles to be used for exterior structural paving applications. Our high performance 3/4" thick tiles offer an extraordinary load-bearing strength and hard-wearing resistance combined with an outstanding aesthetic appearance and anti-slip finish. They are ideal for any commercial or residential project and suitable for rooftops, terraces, patios, decks, balconies, etc.

Porcelain Paver

Double Porcelain Tile

This exclusive and unique product is the ultimate solution for outdoor raised floor projects providing trendsetting cuttingedge designs of unparalleled beauty and refinement. These double pieces are available in same size, color and finish than most of our porcelain tiles which enables the possibility of creating unbroken visual continuity between outdoor and indoor spaces in any residential or commercial project. Given its extreme wear and weather resistance, it is the perfect alternative to wood and stone that will remain absolutely unchanged over time. A 10,5mm or thicker anti-slip tile must be chosen.



≧ 8,5 MM
≧ 10,5 MM



Advantages





1. Optimal water drainage during rain or cleaning.

granting permanent access to the subfloor.





4. Light system compared to the typical concrete pavers system.

5. Great acoustic insulation





7. No need for expansion joints.

8. Good mechanical resistance.





3. Elements such as pipes are completely hidden under the panels.





6. Good thermal insulation created by the air chamber between the raised access floor surface and the roof.



9. Flat and level finish. Slopes and drains are hidden.



How to request a quote for oudoor RAFx

Required Information:

- Provide dimensioned plans.
 Specify the model and format to be used.

Additional information: steps, skirting boards, etc.

Once this information is received, Butech will provide a breakdown, indicating the recommended quantity of tiles to be used along with the corresponding quantity and dimensions of each pedestal and its placement. This must subsequently be reviewed and confirmed by the installation company.







- 1. Reference: Carlet Vic Projects
- 2. Location: Carlet, Valencia
- **3. Area:** 80 m²
- **4. Double tile:** Manhattan Colonial Ant. 19,3 cm x 180 cm
- 5. Pedestal layout:





- Location: Bétera (Spain)
 Area: 70 m2
- **4. Double tile:** Rox Grey Ant. 59,6 cm x 59,6 cm
- 5. Pedestal layout:











Tile and Pedestal Layout provided by butech

- **1. Reference:** Miller Sunken Patio
- **2. Location:** Bellevue, Washington (USA)
- **3.** Area: 34 m²
- **4. Double tile:** 59,6 cm x 59,6 cm
- 5. Pedestal layout:







- Reference: Residential Project
 Location: Jerez de la Frontera, Cádiz
- **3. Area:** 210 m²
- 4. Double tile: Dover Caliza
- Antislip 59,6 cm x 59,6 cm
- 5. Pedestal layout:







BOTTEGA

Rectified Porcellanato Tiles

Concrete



BOTTEGA CALIZA ANTISLIP

59,6 x 59,6 x 2 cm · 24" x 24" x 13/16"
90 x 90 x 2cm · 36" x 36" x 13/16"
60 x 120 x 2 cm · 24" x 47" x 13/16"
120 x 120 x 2 cm · 47" x 47" x 13/16"

100285287 100368869 100323742 100350765



BOTTEGA ACERO ANTISLIP

59,6 x 59,6 x 2 cm · 24" x 24" x 13/16"	100285276
90 x 90 x 2 cm · 36" x 36" x 13/16"	100368873
60 x 120 x 2 cm · 24" x 47" x 13/16"	100323637
120 x 120 x 2 cm · 47" x 47" x 13/16"	100350766

Packaging 59,6 x 59,6 · 2 PZ/CJ - 0,71 M²/CJ · 22,73 M²/PAL 90 x 90 · 1PZ/CJ · 0,81 M²/CJ · 21,06 M²/PAL 60 x 120 · 1PZ/CJ · 0,72 M²/CJ · 21,60 M²/PAL 120 x 120 · 1PZ/CJ · 1,44M²/CJ · 25,92 M²/PAL









Stone



DURANGO BONE ANTISLIP 59,6 x 59,6 x 2 cm · 24" x 24" x 13/16" $120 \times 120 \times 2 \text{ cm} \cdot 47^{\circ} \times 47^{\circ} \times 13/16^{\circ}$



DURANGO ACERO ANTISLIP 59,6 x 59,6 x 2 cm · 24" x 24" x 13/16" $60 \times 120 \times 2 \text{ cm} \cdot 24^{\circ} \times 47^{\circ} \times 13/16^{\circ}$

Packaging 59,6 x 59,6 · 2 PZ/CJ - 0,71 M²/CJ · 22,73 M²/PAL 60 x 120 · 1 PZ/CJ · 0,72 M²/CJ · 21,60 M²/PAL 120 x 120 · 1 PZ/CJ · 1,44M²/CJ · 25,92 M²/PAL



Rectified Porcellanato Tiles

100308829 100350772

100308870 100323667





Stone



CORAL CALIZA ANTISLIP 120 x 120 x 2 cm · 47" x 47" x 13/16"

Packaging 120 x 120 · 2 PZ/CJ - 0,71 M²/CJ · 22,73 M²/PAL



100350773



Rectified Porcellanato Tiles

Stone



BERNA ACERO ANTISLIP 59,6 x 59,6 x 2 cm · 24" x 24" x 13/16" 60 x 120 x 2 cm · 24" x 47" x 13/16"

100308856 100323966



Packaging 59,6 x 59,6 · 2 PZ/CJ - 0,71 M²/CJ · 22,73 M²/PAL 60 x 120 · 1 PZ/CJ · 0,72 M²/CJ · 21,60 M²/PAL





HARLEM

Concrete



HARLEM ACERO ANTISLIP 59,6 x 59,6 x 2 cm · 24" x 24" x 13/16"

Packaging 59,6 x 59,6 · 2 PZ/CJ - 0,71 M²/CJ · 22,73 M²/PAL



Rectified Porcellanato Tiles

100308854

ROX

Rectified Porcellanato Tiles · Coloured Biscuit

Stone



ROX NEW COAL ANT. RECT. 59,6 x 59,6 x 2 cm · 24" x 24" x 13/16"

100167343



ROX NEW GREY ANT. RECT. 59,6 x 59,6 x 2 cm · 24" x 24" x 13/16"

100162534



ROX NEW BEIGE ANT. RECT. 59,6 x 59,6 x 2 cm · 24" x 24" x 13/16"

100162750

Packaging 59,6 x 59,6 · 2 PZ/CJ - 0,71 M²/CJ · 22,73 M²/PAL









TANZANIA WHITE ANTISLIP 29,5 cm x 120 cm x 2 cm · 11 5/8" x 47 " x 13/16"



TANZANIA SILVER ANTISLIP 29,5 cm x 120 cm x 2 cm · 11 5/8" x 47" x 13/16"



TANZANIA NUT ANTISLIP 29,5 cm x 120 cm x 2 cm · 11 5/8" x 47" x 13/16"



TANZANIA ALMOND ANTISLIP 29,5 cm x 120 cm x 2 cm · 11 5/8" x 47" x 13/16"



TANZANIA NATURAL ANTISLIP 29,5 cm x 120 cm x 2 cm · 11 5/8" x 47" x 13/16"

100323793

100323767

100323785

100323765

100323766

Packaging 2 PZ/CJ · 0,708 M²/CJ · 22,66 M²/PAL



Rectified Porcellanato Tiles

Wood



RIVEN WHITE ANT. RECT. 29,5 x 120 x 2 cm · 11 5/8" x 47" x 25/32"

100229792



RIVEN CREAM ANT. RECT. 29,5 x 120 x 2 cm · 11 5/8" x 47" x 25/32" 10

100229737



RIVEN BROWN ANT. RECT. 29,5 x 120 x 2 cm· 11 5/8" x 47" x 25/32"

100229775

Packaging 29,5 x 120 · 2 PZ/CJ · 0,708 M²/CJ · 22,66 M²/PAL





OFFICES PROJECT - STERLING ARCHITECT: DEMIAN WILBUR ARCHITECTS PHOTOGRAPHY: LA DEXON PHOTOGRAPHIE

DOUBLE TILE

As an alternative to 20mm tiles, manufacturing thickened panels with any PORCELANOSA Grupo tile model is possible. The only requirement is choosing a 10mm thick tile available in anti-slip version.

Should you need more information please contact the butech technical department.



Coping piece

These steps stand out for their straight design on the front and their uniform, modern appearance, where the front's tone matches that of the tread surface. For increased durability, the connection between the tread and the front includes a micro-bevel that minimizes the risk of impact damage.

The mitered design between the tread and riser creates a defined, clean angle, which also allows for the riser's dimensions to be adjusted according to specific needs.

The custom-made L-shaped solid piece offers a unique, seamless finish for any required termination.

Its most common use is in finishing Outdoor Raised Floors, stairs, and pool edges.

H = Height* W = Width* L = Length*





SAP 100333194



Maintenance instructions

NON-SLIP MATERIALS

1. INITIAL CONSIDERATIONS

Non-slip materials, due to their inherent surface characteristics (more specific surface) are less hygienic (it is easier for dirt to accumulate and it is harder to remove it) than models that do not have this property.

The recommendation for of this type of texture shall be directed only towards those settings that really require it, either due to legal or regulation specifications, or the establishment of safety conditions necessary to minimize the risk of falls from slipping in specific areas (swimming pools, outdoor ramps, wet areas,...)

2. DURING INSTALLATION

In order to minimize deposition of bonding and grouting material debris on the ceramic flooring, we shall take a series of precautions that will facilitate subsequent cleaning and will prevent the use of more aggressive cleaning methods: Adopt the necessary construction and organizational measures to ensure that access and circulation routes remain as dry as possible, avoiding potential water logging (slopes, appropriate outlet openings, drains,....) Avoid the hardening of the bonding and grouting material on the non-slip surface, eliminating any adhesive remaining while it has not yet set, using plenty of water to this end. The grouting operation shall be limited to small areas, cleaning the material immediately from the ceramic surface. Plenty of clean water shall be used, ensuring that the cleaning debris is eliminated from the ceramic surface, thus avoiding the detached material from depositing again on the tiles. The roughness of the texture, as well as a greater specific surface, are characteristics that cause that, once the cement material's setting time has passed, its surface removal operation is more complex.

Protect the flooring until the completion of the work, in order to avoid damage and stains caused by actions subsequent to the flooring installation and prior to the delivery of the work.

3. PROHIBITIONS · ADVISED-AGAINST ACTIONS

No aggressive cleaning products or methods shall be used, specially cleaning with rotary machine with hard PAD discs, as they generate a polished surface and gradually reduce the slip resistance. Metal spatulas, abrasive scourers, or concentrated chemicals shall not be used in cleaning.

4. MAINTENANCE AND REGULAR CLEANING

We recommend installing dirt retention systems in the entries, such as rugs or doormats, as a preventive measure in order to reduce the frequency of cleaning operations.

There are several systems that are suitable for cleaning this type of surface:

- \cdot Water pressure equipment or systems.
- · Steam application systems
- · Plastic bristle brush and rinsing with plenty of water

· Rotary machine is allowed as long as the cleaning tool is a plastic brush.

As cleaning products, acid-based detergents like acid net can be used for lime residues, efflorescences, etc. For generic dirt caused by normal accumulation on the pavement, alkaline detergents like basic gel are recommended. The use of products containing waxes in their composition should be avoided, as they may increase the risk of accidents.

5. CONCLUSIONS

The characteristics of tiles with non-slip texture conform to the use specified in the product's datasheet provided that the appropriate handling, installation, maintenance (cleaning) and use guidelines have been followed. If the owner fails to comply with the provisions of this manual, Butech shall not be liable for the incidents that may arise

If the owner fails to comply with the provisions of this manual, Butech shall not be liable for the incidents that may arise from this non-compliance.





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