Everything you need to know about **raised flooring**

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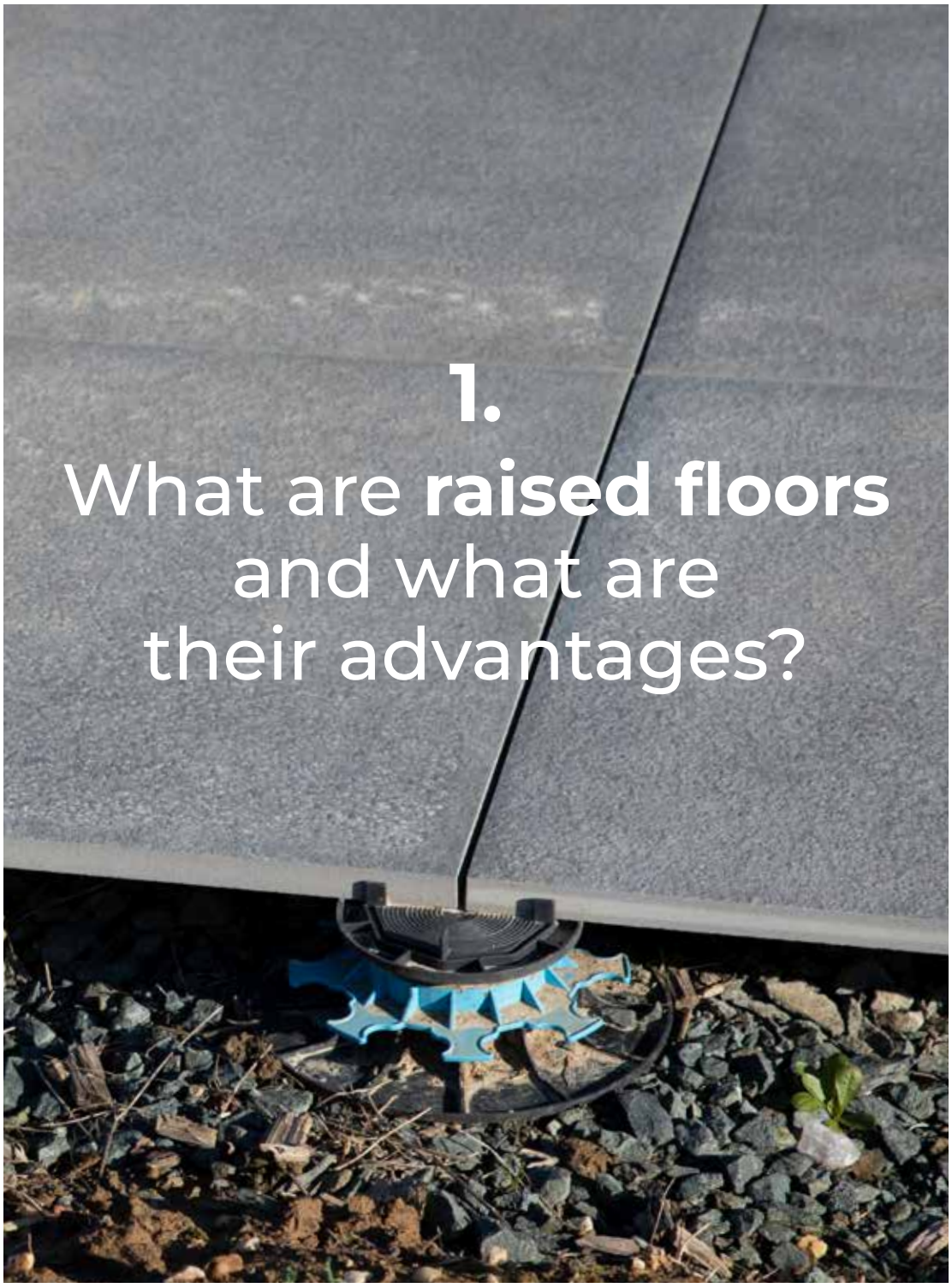
Contents

Raised flooring offers a wide range of benefits. Not only does it adapt seamlessly to uneven terrain, but there are also numerous types of surfaces available for installation. This is thanks to its flexibility and versatility—two key features that make it suitable for both indoor and outdoor use.

Despite its advantages, you may not be fully familiar with this type of flooring. To help you get to know it better, this guide will walk you through its main benefits, the types available at Paratureforma, typical applications, and a step-by-step installation process.

Additionally, since proper maintenance is essential to extend the lifespan of your flooring, you'll also find useful tips and care recommendations.



1.
What are **raised floors** and what are their advantages?

Raised floors, also known as access flooring or raised access flooring, are composed of **modular panels supported by an elevated framework.**

The panels are placed on **adjustable pedestals**, creating a gap between the flooring and the base surface. This space can be used to house piping, electrical and telecommunications cabling, or climate control systems, allowing easy access for maintenance or modification.

Additionally, this type of flooring offers a **wide variety of panels**, manufactured in different materials. Steel, wood, porcelain stoneware, or PVC are just some of the possibilities. Thanks to their exceptional practical and aesthetic qualities, raised floors are commonly installed in offices, data centres, commercial buildings, and, increasingly, in modern homes..

The most significant advantage is its **easy installation and maintenance.** Since there is a gap between the original floor and the new one, repairs do not require construction work. You simply lift the panels to access the issue and then replace them.

Furthermore, this type of flooring **helps improve energy efficiency** by allowing the installation of air distribution systems or underfloor heating beneath it. These systems enhance comfort while keeping electricity consumption low.

It also stands out for its **durability and resistance.** Depending on the materials used for the panels, the floor can withstand heavy loads, making it suitable for areas with high foot traffic and ensuring that repairs are not excessively costly.

2.
Types of **raised floors** available at **Paratureforma**

At Paratureforma, we offer a range of raised flooring systems that stand out for their **durability, ease of installation and cleaning, aesthetic appeal, and overall visual quality.** Among them, the most notable types are as follows:

Decorated ceramic flooring

If you are looking for a floor that is both sophisticated and durable, ceramic flooring is an ideal choice. It **perfectly combines functionality and aesthetics,** as the material offers high durability and beauty.

Given these characteristics, it is a floor intended for **interior projects,** especially those that wish to convey a certain status, such as a beauty salon. The panels can also feature decorative finishes such as geometric patterns, natural textures, or imitations of other materials.

If you are planning a project where the floor will be exposed to variable conditions, ceramic flooring is a good option. The material resists moisture, stains, and, above all, it resists temperature changes without deforming.

Rustic flooring

Rustic flooring helps you create traditional spaces, making it suitable for **homes, restaurants, or outdoor areas.** As with other types, you can expect great hardness, weather resistance, and a wide variety of finishes.

Despite its traditional appearance, **this flooring is versatile** and can be adapted to different layouts without sacrificing any of its unique aesthetic appeal.

Imitation flooring

This is an innovative solution, as these floors mimic natural materials such as **wood, stone, marble, or metal**. To achieve high durability, they are made from materials such as porcelain stoneware. They also stand out for their versatility, as they can seamlessly fit into a wide range of styles.

These floors are ideal for residential areas, offices, and commercial spaces. With them, you can create elegant and personalised environments without having to pay the high cost of the materials they mimic or being subject to their physical limitations, such as installation difficulties.

At Paratureforma, you will find these imitation floors:

- Wood effect
- Stone effect
- Hydraulic effectf
- Marble effect
- Concrete effect
- Metal efect

Terrazzo-effect flooring

Finally, terrazzo-effect flooring provides the unique look of this material, which is made up of fragments of stone, glass, or marble. It is particularly interesting for commercial areas or places that will experience heavy foot traffic. Thanks to its excellent durability and ease of maintenance, it will remain in good condition for years..

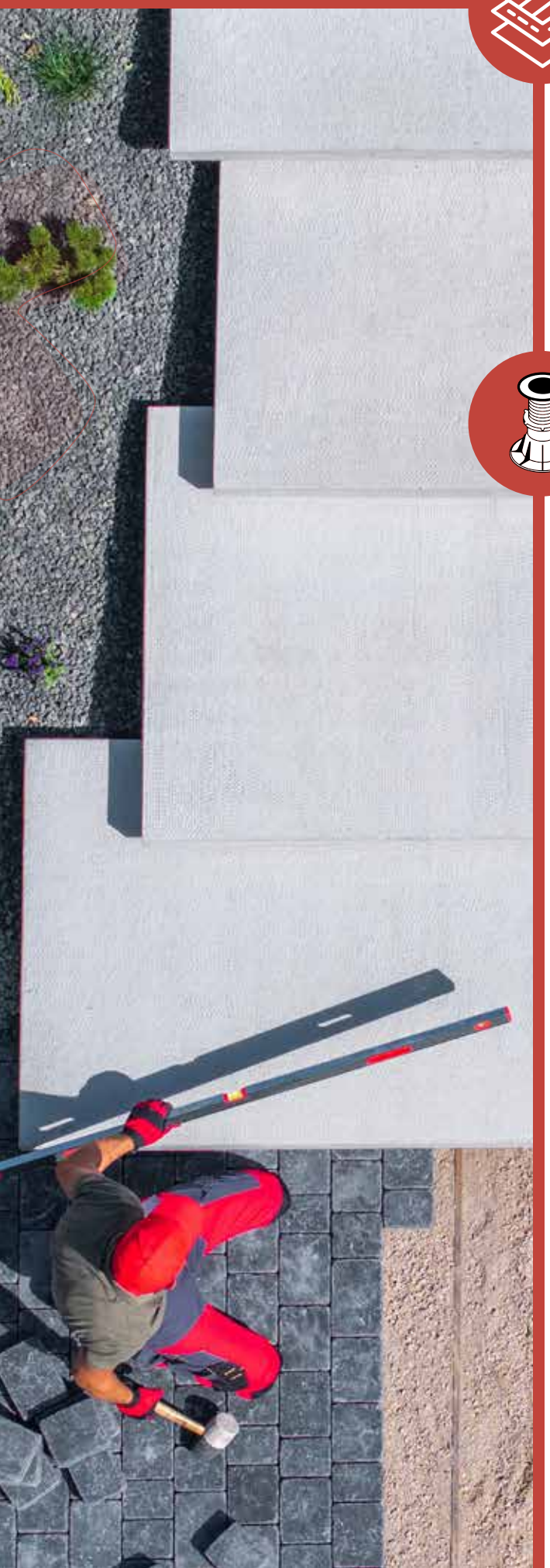
Technical flooring

These are usually chosen for outdoor applications due to their high resistance, **structural stability, and adaptability** to uneven terrain. They easily withstand temperature changes, stains, aggressive chemicals, and weight, as their breaking load values are high.

When you use them, you will be surprised by **how easy they are to install and remove**. This is essential for building a terrace or a perimeter around a swimming pool. The area will be ready in no time.

3.
System components

A raised floor system is made up of three essential elements: **panels, adjustable pedestals/supports, and, when necessary, a support structure.** When combined, these provide a stable, durable surface that is very easy to install.



Panels or tiles

This is the visible surface of the flooring and is available in a wide variety of materials. From porcelain stoneware for raised floors to WPC (a blend of natural wood and recycled polymers) for technical decking systems, you can find countless designs, formats, and finishes to choose the one that best suits your project. These panels can **support heavy loads,** are dimensionally stable, and easy to maintain.

Adjustable pedestals

These are the structural base of raised floors, responsible for supporting the panels when they are not placed on a support structure. To ensure their strength, they are made of **reinforced plastic or galvanised steel,** resulting in a stable, highly durable piece that adapts both to the applications and to the particularities of the floor. One of their most important features is that **their height can be adjusted.** This allows you to adjust the pedestals or supports to uneven surfaces, or to create different levels according to your project requirements, which is why they can be installed both indoors and outdoors. **They are designed to withstand significant loads without deforming or breaking,** that is, they can handle foot traffic, furniture, and any decorative element, always within the manufacturer's parameters. For greater safety, some models incorporate a locking system to prevent the pedestal from losing height. This is the case with the XSP range available at Paratureforma. If you install a raised floor, **pedestals are generally made of PVC or metals such as galvanised steel.** In the case of technical decking, the pedestal fixing system includes stainless steel clips and aluminium profiles.

Support structure

Although it is an optional component, it is worth mentioning because it is included in many projects, as **it reinforces the stability of the system,** especially in cases where greater load capacity or additional resistance is needed.

This structure consists of a metal profile, made of aluminium or steel, which is **placed between the pedestals** to add solidity to the base. By arranging them this way, the load is distributed evenly, reducing pressure on specific points. It even improves resistance to vibrations.

Tilting head for correcting slopes

This piece is designed to **correct possible unevenness and slopes in the subfloor.** It is integrated into the supports and allows you to adjust its inclination through a joint that compensates for irregularities.

It is made of robust materials, such as steel or aluminium, so it can support weight without moving. This way, its stability is always maintained, as well as a uniform distribution of loads.

Slope regulator

Its purpose is to **correct possible variations in the inclination of the subfloor**. Integrated into the supports, this component allows you to modify the angle of the head as needed. This is essential for installations on floors that have a slope, for example.

Tube adapter

The adapter consists of two parts, an upper one and a lower one, and is a substitute for bushings, as it helps **customise the height of the pedestal.** Like other pieces, it is made of robust and durable materials, such as PVC.

Perimeter joints and expansion joints

Both elements are designed to absorb structural movements and **allow the floor to expand or contract over time.** Perimeter joints are placed at the edges to control tension between the system and nearby walls.

As for expansion joints, they are strategically placed so that the floor panels can **adjust to changes in temperature or humidity.**

4.
Step-by-step guide for **easy installation**

Although at first the installation of raised floors may seem complex, the reality is quite different. While it is always important to consider the **specific requirements of each project,** the work you will be carrying out is straightforward. Simply follow the steps below

1. Preparing the work area

Before you begin, it is advisable to prepare the area where you will be working, as **this will help ensure the stability of the system and its long-term functionality.** Assess the condition of the chosen area and make sure it is clean, especially free from rubble, grease, or dampness.

Once this has been done, mark out the design of the raised floor, that is, the points where you will place the supports. The usual pattern is a checkerboard, with pedestals placed at the intersections. Bear in mind that the maximum distance between pedestals is 60 cm.

2. Placing the pedestals

The pedestals are placed following a pre-established layout or installation pattern. This starts from a right angle and aims to **ensure maximum alignment of the panel joints.** Generally, two schemes are used: straight installation, where the tiles are placed parallel to the walls, and diagonal installation, where the panels are arranged perpendicular to the walls. Both schemes are developed **on a grid** that you can mark on the floor or with string to make installation easier. Regardless of the chosen scheme, place the pedestals at the intersections of the grid lines.

3. Installing the panels

When you reach the panel installation stage, the project gradually takes shape before your eyes. Each panel should be placed on the pedestals, **aiming for proper alignment and levelling.** This is the only way to achieve a final surface that is uniform and stable.

You can start installing from a corner or use a specific reference point. In any case, **always work systematically,** placing one panel at a time, which will help avoid mistakes that go unnoticed until the job is finished.

In the case of technical systems, you must first make sure **the stringers are perfectly fixed to the floor,** levelled, and, if necessary, screwed to the pedestals. It is also important to use clips to secure each end of the decking boards, **maintaining a 5 mm gap between board ends** (this gap may vary depending on the piece format, so it is recommendable to check the technical sheet before installation).

4. Doing the final adjustments

The penultimate step is to make adjustments and checks before finishing the job. The first inspection should be done on the surface to **ensure the panels are well levelled and aligned.** The levelling tools you have been using will remain essential at this stage. If there is any discrepancy, adjust the support until the issue is corrected.

Bear in mind that **this step will require patience,** as verifying that the surface is in perfect condition may take time. So, do not rush.

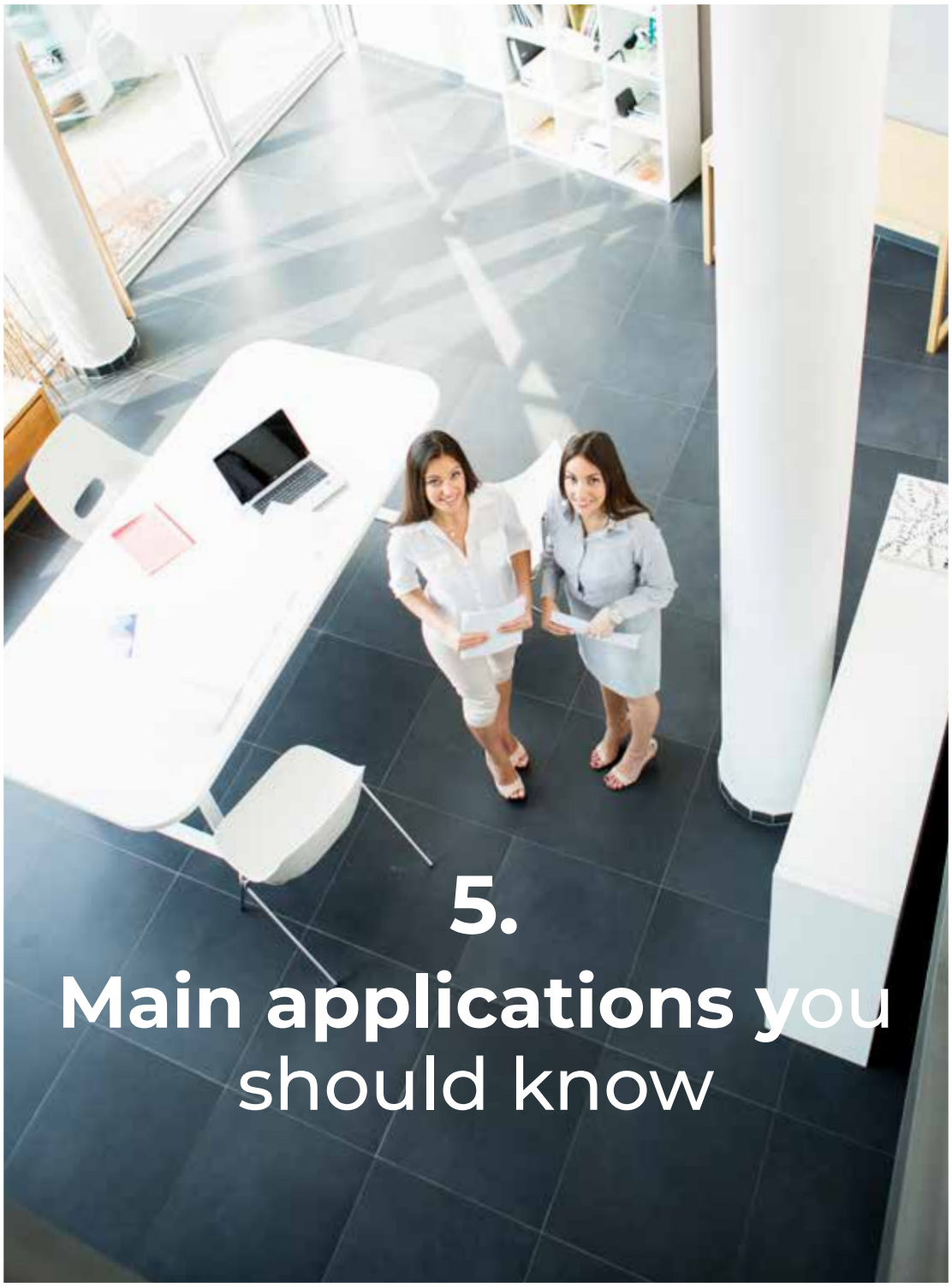
Another key aspect of final adjustments is to **check the joints between panels.** Make sure they are uniform and that there are no misalignments. In systems that include spacers, check that all are in place and functioning as intended.

If the raised floor includes additional accessories, such as ventilation grilles, access points, or cable channels, verify that they are installed correctly **and working as expected.**

5. Cleaning and finishing

Even though you have finished the installation, you still need to make sure the area is clean and has a flawless finish. **Remove any debris or waste from the work you have done,** whether it is dust or discarded material.

Once the area is clean, **check the joints between panels, which should be uniform,** and make sure there are no visible marks. After all these tasks, you will have completed the installation.



5.
Main applications you should know

Raised flooring systems have become increasingly popular in recent years. Their versatility and practicality make them suitable for a variety of settings, ranging from homes to shops.

Offices and corporate spaces

In an office, it is essential to manage certain installations efficiently. This includes electrical systems, climate control, or water pipes. Thanks to raised floors, **the space is much easier to utilise for these purposes.**

Additionally, if you need to carry out a refurbishment or reorganise spaces, a raised floor **makes the process easier from start to finish.** It also reduces costs, as no building work is required, which is important for a company to adapt quickly to recurring changes in the market.

Data centres and technical rooms

Data centres require strict and orderly control of electrical installations, cable distribution, and cooling systems. It is vital that the design ensures building **operations remain constant, safe, and optimal**.

As with offices, raised floors meet these needs **without sacrificing aesthetics at any time.**

Outdoor areas

Whether you are building a terrace or a pool area, raising the floor is a very good option.

Bear in mind that, in these cases, the original ground does not need to be level. If you were to lay a floor directly on it, **the work would be costly,** as the ground would need to be levelled.

Shops and stores

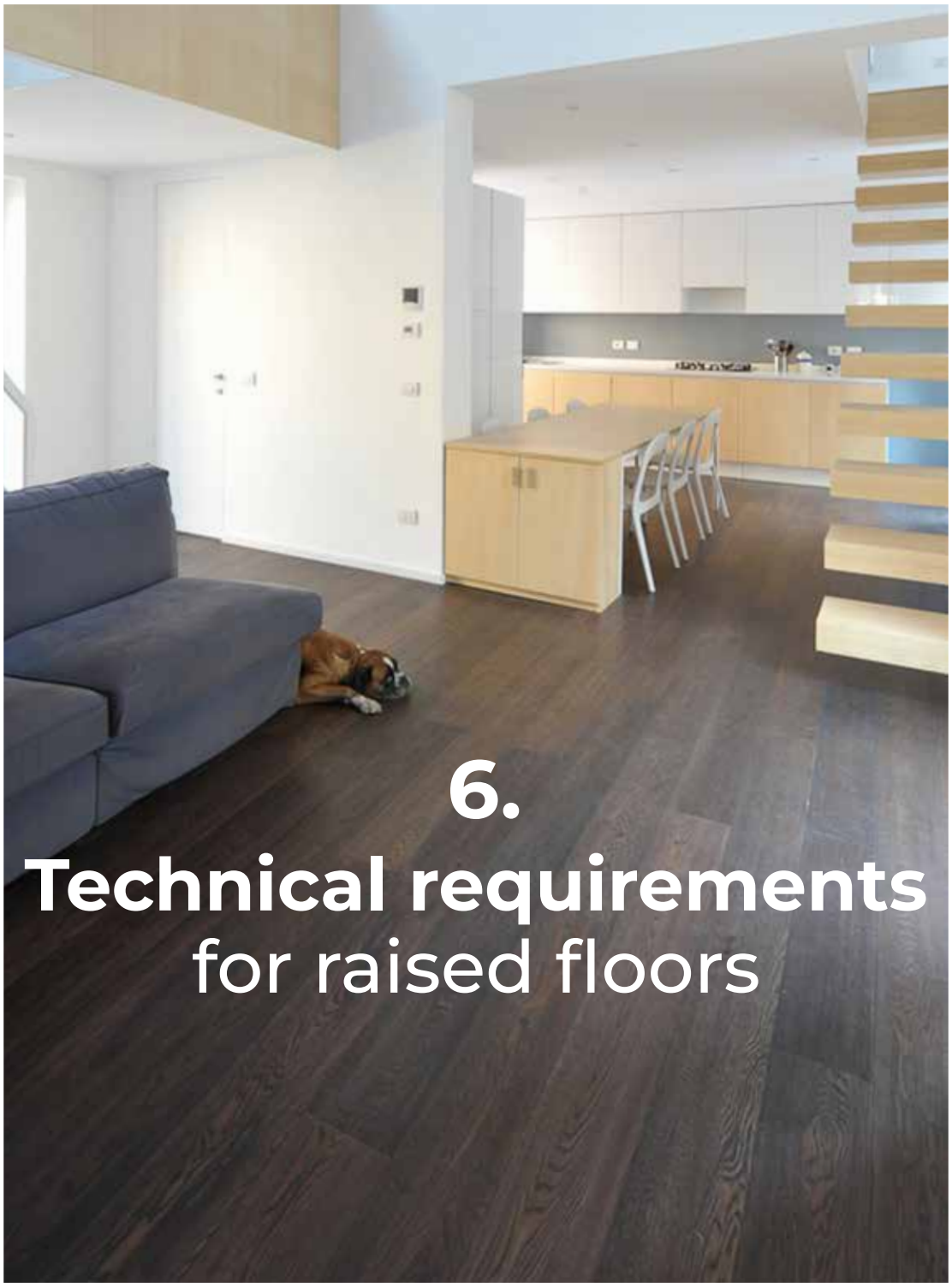
The function they serve in commercial spaces is similar to that in offices, although the requirements are less demanding. Raising the floor is still very useful for integrating different systems, but in this case, the **versatility of designs and aesthetics is more important.** Think of a shop that sells natural products. When designing the interior, it is vital to convey that the food is organic, emphasise sustainability, and use an appropriate colour palette. Thanks to a raised floor, **it is very easy to achieve a harmonious and flawless finish.**

Homes

More and more homes are opting for raised floors. After all, **the benefits they offer are also well received in a residence.**

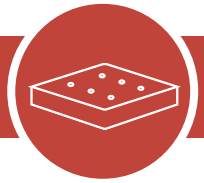
Concealing installations without building work and making future maintenance easier adds undeniable value for many people.

If you need to renovate years later, modifying the floor will not be costly or inconvenient. **You will just need to remove the panels** and replace them with new ones.



6.
Technical requirements for raised floors

To ensure the correct functioning and durability of a raised floor, it is essential to consider a series of technical requirements. These cover various aspects, from the condition of the subfloor to resistance to adverse weather conditions, which are explained below.



Suitable subfloor

The base surface o subfloor is a critical factor for the installation of raised floors. It must be uniform, firm, and have a **slight slope to facilitate rainwater drainage in outdoor settings.** This prevents accumulations that could compromise the structure.

It is vital that the ground supports the weight of the pedestals and tiles, especially in applications where heavy materials such as stone or ceramic are used (they can exceed 30 kg/m². For installations on gravel or soil, it is advisable to compact the base and add a layer of geotextile to prevent sinking and weed growth.

Additionally, **the type of surface influences the choice of pedestals:** models with adjustable bases are ideal for uneven terrain, while fixed supports work better on even surfaces.

Load and resistance

Load and resistance **determine the safety and durability of the pedestals** in various applications. The pedestals must withstand both static and dynamic loads. For example, in residential installations, they should support at least 400 kg/m², while in commercial or high-traffic areas, this capacity may exceed 1,000 kg/m².

The materials used for the tiles, such as **ceramic, natural stone, or engineered wood,** also affect the overall resistance of the system. It is important to select pedestals made from high-quality polymers and treated against UV rays, ensuring they maintain their structural capacity even under challenging weather conditions.

Weather resistance

If you are installing a raised floor outdoors, the pedestals and tiles must withstand **temperature variations,** humidity, prolonged sun exposure, frost, and heavy rain without losing functionality or appearance.

To achieve this, high-quality supports are made from materials resistant to both UV rays and extreme temperatures (**from -30°C to 70°C**), guaranteeing durability even in harsh climates. The panels themselves are made from ceramic, porcelain stoneware, or composite materials that may be slip-resistant or able to withstand moisture.

Adjustable height

Thanks to this feature, you can **adjust the pedestals to various slopes and project requirements,** always within the safety limits specified by the manufacturer. Generally, the adjustment range varies between 25 and 200 mm, although some specialised models reach up to one metre, and bushings can be installed to further extend the pedestal's height. This flexibility makes it easier to level uneven surfaces and create technical spaces beneath the floor for cables, pipes, or drainage systems.

For stability and safety, choose **pedestals with precise adjustment mechanisms,** such as reinforced threads or locking systems, which can bear the weight without slipping. For areas with significant slopes, models with tilting heads capable of correcting inclinations of up to 5% are ideal. Adjustable height not only improves the functionality of the floor but also **optimises the design,** resulting in a clean, professional installation in any environment.

7.
Care and maintenance

Without proper care, the flooring will **lose much of its service life**. Although these systems are designed to be durable and low-maintenance, certain periodic tasks should not be neglected.

One of the most important aspects is cleaning the tiles and removing dirt, leaves, or debris that may accumulate on the surface. This simple step helps prevent damage and defects that could affect the appearance and functionality of the floor.

It is essential to regularly inspect both the pedestals and the level of the flooring. If you notice any movement or unevenness, make the necessary adjustments immediately **to prevent the structure from becoming unbalanced.** Additionally, in areas with significant temperature changes, it is advisable to check for any damage caused by contraction or expansion.

Another key aspect is to check the drainage system, **ensuring that water flows correctly and does not accumulate beneath the flooring.** In installations that conceal cables or pipes, you must ensure these elements are in good condition and free from blockages.

Finally, although raised floors are generally very robust, **avoiding heavy** impacts or placing objects that exceed the maximum weight specified by the manufacturer is recommendable.

Examples of use

Thanks to their versatility, you can find examples of the use of raised floors both outdoors and indoors. A common application is to **create a relaxation area beside a swimming pool.** In these cases, having waterproof and slip-resistant flooring is extremely useful for several reasons.

When renovating an office, raised floors are an interesting option. If the existing floor is badly damaged and cannot be repaired, or if the work would be too expensive, installing a raised floor is **a simple and cost-effective solution.** The same applies to homes..

Raised floors are also suitable for industrial plants, where **effective management of channels and cabling is essential.** The gap created by elevating the floor allows systems to be installed underneath, providing quick access whenever necessary.

Additionally, high-traffic areas such as corridors or entrances in hotels and shopping centres are good examples. These floors are **subjected to constant stress** throughout the day, requiring high resistance and easy repair in case of damage.

Finally, raised floors are an excellent solution for **creating walkways near beaches or lakes.** In that case, pedestals need to withstand humidity, as well as the growth of plants or algae, so they must be carefully selected.

In summary, this guide to adjustable flooring shows the many options and advantages available. Raised floors fit into almost any space you can imagine, thanks to their versatility, highly customisable appearance, and practicality. They can be installed both outdoors and indoors due to their exceptional features.

Installation is straightforward: simply place the pedestals in the correct positions, adjust their height, and lay the panels on top. In no time, you will have a unique and highly practical floor. And remember, at Paratureforma we offer a wide variety of options to help you carry out your projects.