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## **The CharmFloor Plug&Play coverings: Installation & Use Guide**

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**This part of the manual is intended as a basic guide for installing CharmFloor.**

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# Installation Guide

The CharmFloor Plug&Play magnetics coverings are designed to eradicate the need for gluing. CharmFloor needs to be laid on clean, level, smooth, flat dust free, ideally new raised flooring to ensure the magnetic backing can take full effect.

The magnetic action is physically linked to the distance between the involved components, so meaning that the force of adhesion is dramatically affected by the increasing of the distance.

As consequence, to grant the better possible contact result, both top and bottom involved surfaces have to be perfectly levelled, flat, smooth, clean as well as free of any possible trace of dust or debris.

For the combining of above-mentioned reasons, the functionality of the whole CharmFloor original system could be jeopardized.

## a) PRECAUTIONS

In order to prevent accidents and avoid damage to the floor, access by all persons except the floor installation team should be prohibited during the installation phase.

Ensure that no part of the CharmFloor installation is:

- Used as a workshop or as a platform for storage of equipment and materials.
- Permitted to be used trafficked by other trades until the main contractor has accepted responsibility for the installation.
- Subjected to static or dynamic loads, which exceed those for which it is designed.

## b) SUITABLE SITE CHARACTERISTICS

Before starting installation it is necessary to check that the site has suitable characteristics to receive all the materials required for installation:

- Suitable storage site, and installation area having a temperature between 5° and 35°C (15° to 25° C for CharmWood) with relative humidity between 40% and 75% (50% to 65% for CharmWood); **for CharmWood see also the bespoke notes below listed\***
- After the delivery on site, the packing has to stay at least 2-3 days before use, so that the material can become acclimatized.
- The surface of the rooms where the CharmFloor will be installed must be perfectly levelled, flat, smooth, clean as well as free of any possible trace of dust or debris.
- Suitable haulage facilities must be provided to load the materials out.

## c) LAY-OUT MARKING

To allow a faster installation and good results it is recommended to mark out the position of the starting grid before to start of the installation. The starting grid has to be accurately marked in order to avoid too small perimeter tiles, as small tiles have a small adhesion magnetic force and risk to become unstable.

## d) INSTALLATION

Installation of the access floor system has to be made in accordance with the above mentioned. conditions. Once the layout of the CharmFloor has been decided, the installation can start.

**It is mandatory to create and let a gap of 4/8 mm along all the perimeter shape, to allow any possible dilatation movement!**

- Start the laying of the first entire CharmFloor tile, perfectly aligning it to the line created with a laser or previously marked with coloured chalk line.
- Proceed with the following tiles, aligning and putting them accurately in contact with each other, to avoid any possible gap between them.
- Complete operation with perimeter applications as follows. ;
  - Measure the distance from the last entire tile and the perimeter wall, trying to avoid to have any possible too small piece, benign conscientious that an expansion joint of 4/8 mm has to be forecasted.
  - Cut on size the perimeter tile and place them to fulfil the entire floor layout.
- Use the proper tools to cut each different CharmFloor's kind of tile.
  - **CharmWood:** portable band saw or portable circular saw wood blade equipped, useful for all together wood and magnetic plastic backing.
  - **CharmGres:** portable ceramic cutting carriage for the tile, and snap-off cutter/stanley knife for plastic edging and magnetic backing; a portable circular saw, ceramic blade or disk equipped could be an alternative useful for all together ceramic, edging and magnetic plastic backing.
  - **CharmStone:** portable circular saw, stone/marble blade or disk equipped, useful for all together stone and magnetic plastic backing:
  - **CharmPlus:** snap-off cutter/stanley knife.
  - **CharmMetal.** portable circular saw, metal blade equipped, useful for all together metal and magnetic plastic backing.

## O&M Manual

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The installed CharmFloor needs to be handled in a manner appropriate to its design. The following advisory information will facilitate its use and save time and unnecessary expense.

### **e) PROTECT THE FLOOR WHEN MOVING EQUIPMENTS**

Adequate precautions, including the use of spreader plates, must be taken during the installation of materials and equipment.

The type of floor protection can only be determined by assessing the following factors:

- Gross weight.
- Distribution of the gross weight.
- Size and type of the wheel, castor or moving skate.

**Various covering protections may be used depending upon the above. Typical materials are:**

- Hardboard sheet.
- Plywood sheet.
- Various thickness of chipboard.
- Various thickness of steel or aluminium sheet.
- Correx sheet.

#### **f) HANDLING**

It is important that tiles are removed and replaced by lifting and lowering in the horizontal plane.

Do not remove tiles by using a 'hinged action' or by 'levering' with screwdrivers or similar.

Care should be taken to avoid damaging the magnetic backing and abs edging on perimeter's tiles (if applicable). If dislodged can be re-glued with a proprietary adhesive. Tiles should be carefully lifted and replaced in their original orientation.

According to the type of surface material, it may be found that lifting and repositioning the tiles is accomplished more easily by the use of two lifting devices, which allows the weight and balance to be more easily controlled.

Each tile should relocate, without the use of force, into its original position. If it fails to do so, remove it and investigate the reason.

**Do not force tiles into position!**

#### **g) MAINTENANCE**

The amount of maintenance likely to be required will depend on function and the type and volume of traffic across the floor.

To prevent small problems becoming serious, adjustments and repairs should be actioned as quickly as possible. The remedy may be as fast and simple as changing standard tiles in high traffic areas with others, which are in more remote positions. Should a tile show any sign of instability, investigate and rectify.

#### **The effect of cut-outs on tiles.**

Tiles with holes cut in them are inevitably of reduced strength. The amount by which the strength of a panel is reduced will depend on the shape and the position of the cut out and its dimensions.

There are multiple potential combinations of hole size and position that it is not possible to issue general information; rather each configuration needs to be considered on its merits.

Holes are cut in tiles normally for cable entry or ventilation. Cable entries are normally under machines and vents are more commonly in exposed positions.

#### **Cable Entry**

It is not recommended that the weight of heavy equipment is imposed on tiles containing cut-outs. In particular, there should be no excessive weight close to the cut-out itself. If it is unavoidable that the weight and the cut-out position are close together, it may be recommended that an extra pedestal(s) should be installed to transfer the weight axially down the pedestal(s) to the subfloor.

#### **General**

Caution should be exercised in placing tiles containing cut-outs in areas which are likely to be heavily trafficked by rolling loads. When equipment is being moved or manoeuvred, spreader plates should be used.

## **h) REMOVING AND REPLACING TILES SAFELY**

Always use the correct lifting tool, and ensure the lifting tool is in good condition and fit for the purpose. It is recommended that 2 panel lifters are eventually used as per the kind and weight of tiles. Place the lifters diagonally across the tiles and ensure that there is effective grip of suction.

Test the grip by pulling on the handles before starting to raise the tiles.

Raise the tile in a horizontal plane so that it will clear adjacent tiles without jamming and without the use of excessive force.

Once the tile is lifted clear of the floor surface rotate it through 45° and rest it on the surrounding tiles.

Some tiles do not have a smooth soffit. Take care to avoid scratching or indenting adjacent tiles by placing one on another.

Remove the lifting tools from the tile surface. Now lift and move the tile by holding the sides.

**Before replacing a tile, to grant the better possible contact result, both top and bottom involved surfaces have to be perfectly levelled, flat, smooth, clean as well as free of any possible trace of dust or debris.**

Replace the tile using enough lifting tools and offer it gently into the opening. It may need gentle hand pressure to press it home but should not be forced. If a tile will not go into place without resort to force, remove it again and investigate.

Failure to observe and implement the correct procedure may result in damage to the CharmFloor system.

Damage to the flooring system will, in turn, affect its future performance and the longevity/warranty of the system.

## **i) MOVING HEAVY EQUIPMENT**

Ensure that all tiles are in position and properly fitted. Investigate any rocking tiles or irregularities, which might indicate a loose substrate floor stability.

Overlay the route to be transited with protective covering. Secure it so that it cannot move horizontally. It is particularly important to prevent movement which could create a gap between boards, allowing the pallet truck or bogey to impact on the CharmFloor surface.

**Take care to avoid impact loads!**

Shunt loads which impose a sideways force should also be avoided, especially at and close to perimeters. It may be advisable, when perimeters are exposed on one or more sides (a loading bay, for example) to install a restraining system to enhance stability. Such enhancement could consist of additional pedestal base fixings, horizontal bracing of pedestals fixed at some point to the structure, diagonal bracing and screwing panels to pedestal heads.

Heavy loads on castors and small wheels should not be run across grilles, perforated panels, panels with service outlet boxes or grommets and other panels with cut-outs.

If in doubt, always consult with a representative of a recognised Raised Access Flooring Company for advice when heavy items of equipment are being moved on to, and across, the raised floor.

The floor surface may be damaged or indented by hard wheels, castors etc. when combined with heavy loads. An overlay will help prevent this.

## **I) MODIFICATION / DISPOSAL INSTRUCTIONS**

If tiles need to be removed for access, or any damaged tiles need to be replaced, follow the maintenance and cleaning instructions.

No special requirements are necessary for the disposal of the floor panels.

## m) CARE&CLEANING INSTRUCTIONS

**The tile's connections are never sealed, as consequence, beside the kind of product, under no circumstances should liquids be used on the floor in a way which would damage the tiles or could seep between tiles and on to the below.**

### **CharmGres&Stone**

The CharmGres flooring system requires little maintenance, however there are some simple rules that are recommended.

The most important is to have a doormat or grate at the entrance, to stop dirt being brought inside.

This helps a great deal in keeping maintenance costs low and increases the durability of the floor. It is also important to place pads beneath the feet of furniture, tables and, chairs.

Solvent based polish or glazed varnishes; acetone or any type of solvent have to be avoided.

For the general cleaning the following method should be used.

Use a vacuum cleaner or broom or an electrostatic cloth to remove dust and dirt from the flooring.

For full cleaning and sanitation of CharmGres, use an appropriate limited quantity of detergent diluted in water, applied exclusively with a damp cloth or micro-fibre mop, immediately taking care to dry-up any possible excess of water.

In case of needing, and only for the involved areas, always taking care to don't give any chance to the products to leak through the tile's gaps, for the dirt from food (grease, oil and food) can be carefully used the "PS/87" produced by Fila, "DETERFLASH" produced by Geal, while for the inorganic dirt on rough materials can be used "DETERDEK" produced by Fila, or "SOLVACID" produced by Geal, or "KERANET" produced by Mapei, or "FLOOR CLEANER" produced by Faber chimica, or Cif Gel Liquid.

If floor-washing machines are used, we recommend low velocity cleaners.

### **CharmWood (bespoke notes\*)**

The duration and mechanical strength of a varnished parquette floor is subject to regular proper maintenance, that will significantly extend its life.

The natural parquette surface should be well protected from dust or liquids, so cleaning and maintenance could be easily carried out. Do not use alkaline substances for normal cleaning of wooden floors; they could cause "yellowing" or other changes in colour. Washing that is too heavy and leaves excessive amounts of water in the micro splits could cause absorption of liquid, damaging the wood and blackening the joints.

It is very important to remember that the best care and maintenance of parquette starts before laying the floor and continues without interruption with prompt prevention, especially by controlling the environment (e.g. environment temperature and humidity). Be aware that high temperatures (22-24°C) in dry winter months compromise the stability of your parquette, as it has to release part of its humidity to maintain the balance and this causes splitting and/or warping.

Bear in mind that the higher temperature requires higher humidity, as wood is affected by dry air. It is good practice to remember that wood is also affected by cold and high humidity, especially if combined with stagnant air. For raised floors it is a good idea to fit air vents in the rooms so that air can circulate freely, also under the floor.

Everything possible must be done to level the floor or overlay properly, distribute the elements accurately, protect and seal cuts round the edges and achieve good horizontal security of the floor panels and overlays at the most convenient points and in any case around the entire perimeter.

Proper laying carried out by qualified fitters and careful control and adjustment of environment temperature and humidity by the user to keep them within normal values (18-20°C and 50-65%) will keep varnished parquet in good condition longer and will eliminate or considerably reduce problems arising from settling.

Remember also not to seal environments when you are absent, so that air can circulate and the temperature remain acceptable, as these are fundamental elements for parquette flooring at any latitude.

#### Post-fitting protection.

After fitting a raised floor with parquette finish, it is essential to fully protect the surface so that other workers and fitters can complete their work without damaging the floor. Never use plastic sheeting or similar and always avoid adhesive tape of any type for fixing protection directly onto the wood. After carefully cleaning the floor surface, use strong cardboard that is thick enough to avoid tearing when workers and equipment cross it. Be especially careful not to leave screws, nails, wood chips or scraps on the floor, including copper wires and similar.

#### Protection from direct sunlight.

Wood oxidises, which means that its pigmentation is altered by exposure to air and light. This photosensitivity is a characteristic that is more marked in certain woods than others. In many cases oxidation is considered an advantage, as in teak because highlights darken and its yellow colouring is enhanced. Such variations are natural effects and therefore cannot be controlled.

However, direct exposure to sunlight of parquet floors, e.g. near glass panels or windows, in effect puts the colour and stability of wood at risk. Because it is in a closed unventilated environment, during direct exposure to sunlight the temperature of wood goes way beyond that recommended, which is 22°C. This causes the wood to dry out and warp excessively. Of no less importance is the negative effect of colour change and dulling which can never be reversed, even with special finishing treatment.

Exposure to sunlight damages varnished wooden floors.

We recommend the use of suitable curtains and controlling temperature and humidity in the way described above. Shaded, polarized or screened glass is not enough to protect the floor.

Now that you have fitted your access floor parquette panels, here are some tips for maintaining the surface as long as possible:

#### Cleaning & maintenance.

Keeping your parquette panels clean and hygienic is easy: for daily cleaning use an antistatic cloth and in a few minutes dust and superficial marks, such as surface stains, shoe marks, etc. will be removed.

It is well known that rubber soles on acrylic varnish leave an unsightly mark that is not easily removed. There are specific detergent which can dissolve these marks without damaging the varnish.

On the basis of the intensity of use of the floor, every 15 days go over it with a floor cloth soaked in specific parquette detergent and well wrung, paying special attention to the edges to avoid water stagnating in the joints.

Parquette detergent does not have to contain solvents, they should be normally anti-slip and designed to clean and nourish your parquet.

After spreading the product evenly with a soft cloth, leave to dry completely and if necessary polish with a dry cloth to shine the surface.

Pay attention to the water used; if it is too hard it could cause the surface to dull and reveal tidemarks when dry.

We recommend placing a good absorbent mat at the door: this will avoid scratching the varnish in a well-used area like the entrance.

Apply adhesive felt pads to the bottom of things standing on the parquet: furniture, chairs, tables, lamps, etc. to avoid scratching and wear; use rubber castors for revolving chairs, trolleys and/or drawer packs.

#### **CharmMetal**

Clean by sweeping or vacuuming.

Any superficial stains may be removed using a fine water mist spray and wiping immediately with a dry cloth.

## **CharmPlus**

The CharmPlus flooring system requires little maintenance, however there are some simple rules are recommended.

The most important is to have a doormat or grate at the entrance, to stop dirt being brought inside.

This helps a great deal in keeping maintenance costs low and increases the durability of the floor. It is also important to place pads beneath the feet of furniture, tables and, chairs.

Solvent based polish or glazed varnishes; acetone or any type of solvent have to be avoided.

For the general cleaning the following method should be used.

Use a vacuum cleaner or broom or an electrostatic cloth to remove dust and dirt from the flooring.

Wash the floor: for full cleaning and sanitation of CharmPlus, use an appropriate detergent diluted in water and applied only with a damp cloth or micro-fibre mop, immediately taking care to dry-up any possible excess of water.

We recommend the use of Emu-SF, a detergent specifically created for cleaning PVC flooring.

Allow the flooring to dry before opening the area for use.

EMU-SF is an excellent detergent for professional use; it reduces the build-up of dirt by forming a protective film which gives CharmPlus a natural sheen. Dilution: for ordinary cleaning, dilute approx. 50ml of Emu-SF per litre of water. For very dirty floors increase the dose up to approx. 150ml per litre of water. If floor-washing machines are used, we recommend low velocity cleaners.

**THE PURPOSE OF THIS INFORMATION SHEET IS TO EXEMPT JVP SrL FROM ANY RESPONSIBILITY FOR DETERIORATION OF CHARMFLOOR PRODUCTS THAT COULD BE DUE TO FAILURE TO OBSERVE THE PRESCRIPTIONS, INSTRUCTIONS AND ADVICE FOR USE IT CONTAINS.**