

June 2020

## INSTALLATION METHODOLOGY FOR FLOTEX TILES AND PLANKS

### INTRODUCTION

The final appearance, performance and durability of the installed floor coverings will be determined to a large extent by the quality of the prepared subfloor and the conditions of the surface upon which it is laid. A little time and effort spent on the proper preparation of the sub-floor will often be repaid in terms of an installation of which all concerned can feel proud.

Flotex is primarily manufactured for internal use only, and its performance is not guaranteed when used in external environments. It cannot be installed over wood strip or woodblock flooring, textiles, cork or rubber.

The installation of Flotex Tiles and Planks should be carried out following the national code of practice for the installation of resilient floor coverings if applicable. Flotex requires a fully enclosed, weather-tight, smooth, hard, clean, sound and level surface, not only for appearance but also for achieving a satisfactory adhesive bond and long-term durability. The sub-floor should be swept, or preferably vacuumed, to remove all dust and dirt. (Always brush the sweepings away from the area onto which the flooring is to be laid). It is important to remove any traces or patches of oil, grease or any oil-based paint from the sub-floor surface. This can be done using either paint strippers or degreasing compounds. Once clean the sub-floor must be thoroughly washed to remove any stripper or residue and then allowed to dry thoroughly.

Areas to receive flooring should be adequately lit to allow for proper inspection of the substrate, installation and the final inspection.

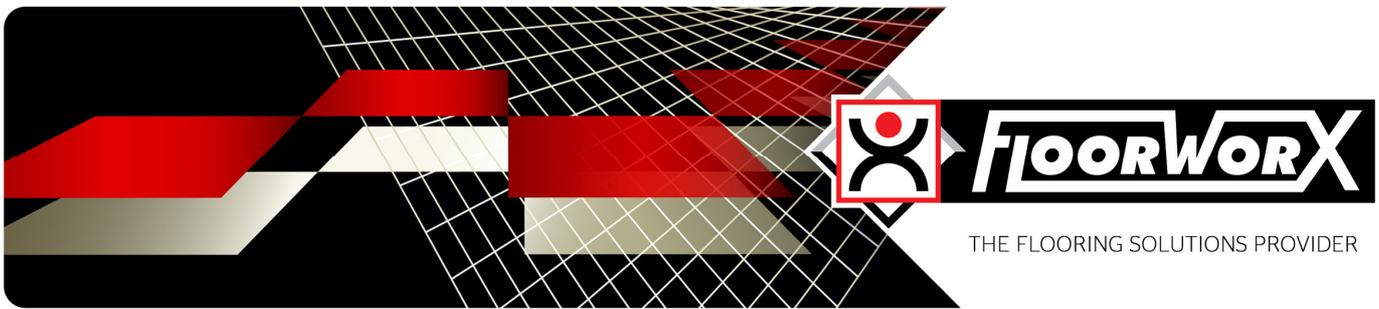
### DESIGNATION OF SUBFLOOR RESPONSIBILITY

As per SANS 10186 Code of Practice: The installation of textile floor coverings, the flooring contractor shall ensure that the sub-floor is sufficiently dry, shows no signs of crumbling, is level, sound and clean. If the substrate not acceptable to the installer, one should not proceed with the installation until one has informed the contractor in writing and the conditions have been improved or one has obtained written waiver of responsibility from the contractor. As soon as the installation is complete, the installer should obtain a certificate of completion from the contractor and any necessary protective measures for the textile floor covering should be implemented.

Addressing unacceptable subfloors can be achieved using a high-quality, reliable, cementitious self-levelling compound, for levelling and smoothing work on interior surfaces.

Note, the product cannot be installed over wood strip or woodblock flooring, textiles, cork or rubber.

Note. Raised access flooring panels tend to settle shortly after installation and this should be taken into account when assessing the appearance of the Flotex Tile/Plank installation fitted onto such flooring systems. Ridges between uneven raised access floor panels will telegraph through to the finished tile installation. Uneven or loose floor panels should be levelled or re-fixed before installing Flotex tiles or planks



The flooring contractor shall ensure that the sub-floor is sufficiently dry before the installation of the flooring material by testing with a suitably approved Concrete Moisture Meter. (*Tramex CME 4, Caisson VI-D4 Pinless Concrete Moisture Meter, GE Protimeter Mini or a Hygrometer*).

Laying flooring onto a wet subfloor will not only affect the adhesive but will also cause the flooring to curl and lift.

(See **FloorworX Technical Bulletin No. 30: Moisture in Sub-Floors and Damp-Proof Membranes**).

## APPLICATION

Ensure that all recommendations for substrate and job site conditions are met before beginning the installation. Beginning the installation is an implied acceptance of site conditions by the parties involved and liability for any failure directly related to inadequate site conditions becomes the responsibility of the installer and/or flooring contractor.

It is essential that the laying area is at a steady temperature of minimum 18°C, 48 hours before, during, and 48 hours after installation. Where national codes of practice exist, they take precedence over these guidelines. Flotex Tiles and Planks must be conditioned in the same environment in opened boxes for at least 48 hours prior to the installation to allow for acclimatisation, at a steady temperature of 18 °C to 27°C. This is particularly important if the floor coverings have been stored or transported immediately before delivery in temperatures below 10°C and/or humidity.

## ADHESIVE RECOMMENDATIONS AND APPLICATION

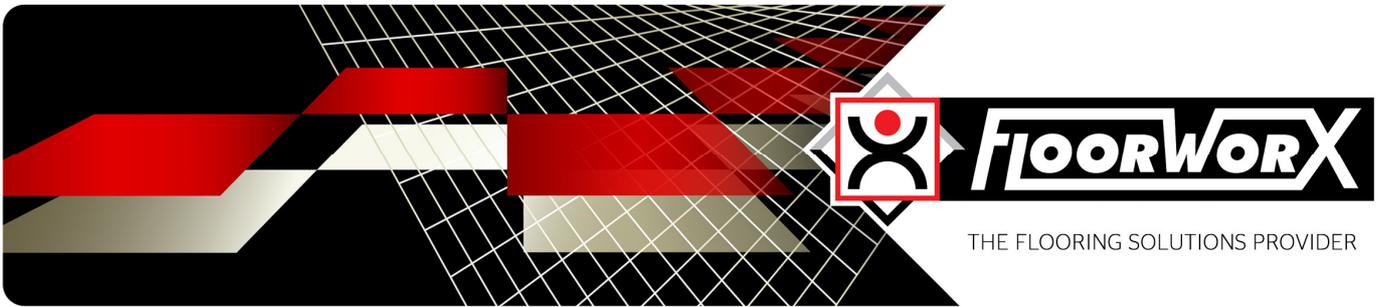
Flotex Tiles/Planks should be adhered to the subfloor, either by means of a permanent bond or a tackifier (pressure-sensitive system).

### Permanent Bonding.

- FloorworX No. 62 acrylic adhesive which has been spread using a TKB A2 notch trowel at a rate of between 5.5m<sup>2</sup> and 6.5m<sup>2</sup> per litre (depending on the porosity of the floor).
- Alternatively, FloorworX No 71 contact adhesive can be applied to both the Tile/Plank and the previously prepared subfloor/area using a brush or paint roller at the rate of approximately 3.5m<sup>2</sup> per litre per single application.

### Semi-bonded (Surface tackifier)

- QAR126C pressure-sensitive adhesive (PSA) or equivalent.
- PSA Adhesives must be applied according to the manufacturer's instructions and it is essential that they are allowed to dry to a clear, tacky finish before laying the carpet tile. (Premature placement of the tile/planks, i.e. when the pressure-sensitive adhesive is still wet, will result in a permanent non-release bond).
- It is recommended where perimeter tiles are not constrained by fixtures e.g. walls, edge strips etc., such tiles are adhered using FloorworX No. 62 acrylic adhesive.
- In most applications a PSA adhesive will be sufficient for heavy commercial usage areas, however, where the tiles or planks are liable to be subject to heavy static or dynamic loads, they should be fully bonded with the appropriate adhesive.



### Note the following:-

- Trowels will wear during use, so check the trowel both before and during use to ensure that the proper specified trowel notch is used and maintained.
- Adhesive must be spread evenly over the entire floor area with particular attention to edges – this will ensure that the perimeter tile cuts are fully bonded.
- The open time of the adhesive will depend on site conditions and porosity of the substrate. It is best practice to conduct an adhesive bond test before starting the installation, as this will assist in identifying both the working characteristics of the adhesive (waiting and working time) for the site conditions and also any potential bonding problems.
- The use of any adhesive other than referred adhesives for Tiles/Planks is done so entirely at own risk as FloorworX cannot comment on the anticipated performance or suitability of adhesives produced by other manufacturers for Flotex.

### MATERIAL

- Before installation, the boxes should be checked to ensure that the correct colour, batch number and quantity have been received and that the material is in good condition. No claim will be accepted for incorrect colour, pattern or obvious damage if the material has been fitted.
- The use of different production batches will always result in visible shade differences therefore it is essential that different batches are not mixed in the same area.
- When ordering tiles, each floor area (plus spares) must be specified from the same batch.
- The batch number is marked on the material packaging and the reverse side of each carpet tile and must be checked before commencement of installation.
- Flotex tiles and rolls should not be mixed within the same area.

### UNDERFLOOR HEATING

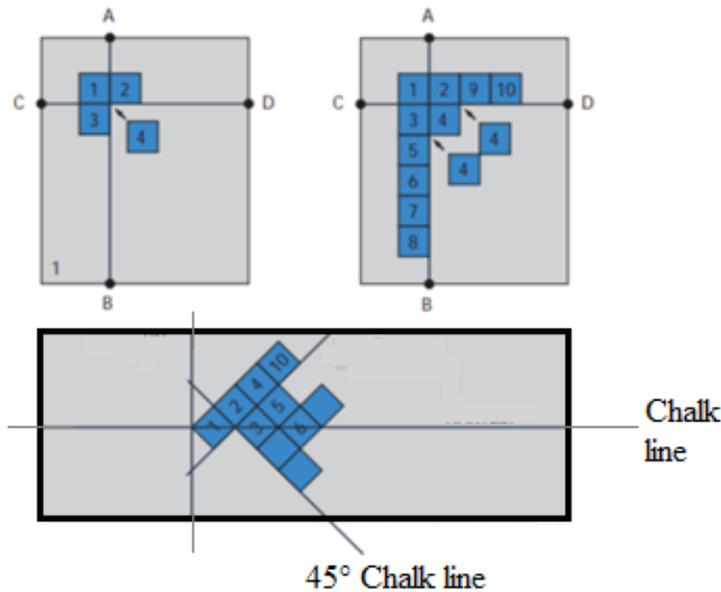
- Flotex Tiles and Planks may be installed over underfloor heated floors providing the maximum surface temperature of the substrate does not exceed 27°C under any condition of use.
- Check to see that the underfloor heating system commissioned is found to be functioning correctly before the floor finish is installed.
- To enable a secure bond of the adhesive to the substrate, the underfloor heating system should be turned off or set to the lowest temperature, for a minimum of 48 hours before installation and remains off for at least 48 hours after the installation is complete.
- During the period of decommissioning, an alternative heating source should be provided, if required, to ensure that the area of installation is kept at a minimum of 18°C before, during, and for 72 hours after installation.
- The temperature of the substrate must not exceed 18 °C during the installation and on completion should be gradually increased over several days by only a few degrees per day until the desired room temperature is reached so the material can adapt to the temperature change together. A rapid temperature change could result in bonding problems.
- The temperature should never exceed the industry agreed maximum of 27°C at the underside of the floor covering (the adhesive line). Failure to follow these guidelines can result in the floor covering delaminating, joints opening, and on some occasions discolouring, all of which can occur over time.

### INSTALLATION – TILES/PLANKS

The following instructions are intended to draw the fitter’s attention to current “Best Practice”, and must be followed for the relevant product guarantees to be valid. Installation must be carried out in accordance with the requirements of this guide along with local codes of practice where applicable.

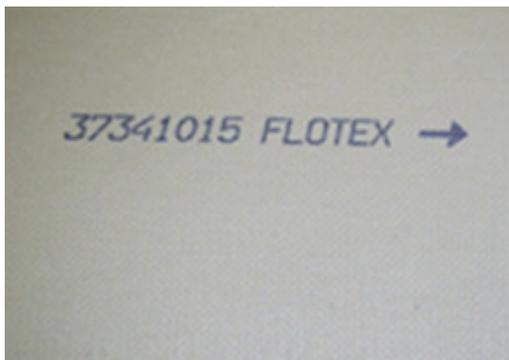
#### Setting Out

- The location of the starting point in an installation is usually determined by the fitter to maximize the yield. This may be anywhere in the room, but would normally be located as near to the true centre as possible. Having established the starting point for the installation, it is generally advisable to carry out set out verifications before commencing the installation.
- Dry laying a few rows of tiles could help identify any potential problems and necessary adjustments can be made to avoid unequal or small perimeter cuts.



#### Pile Direction

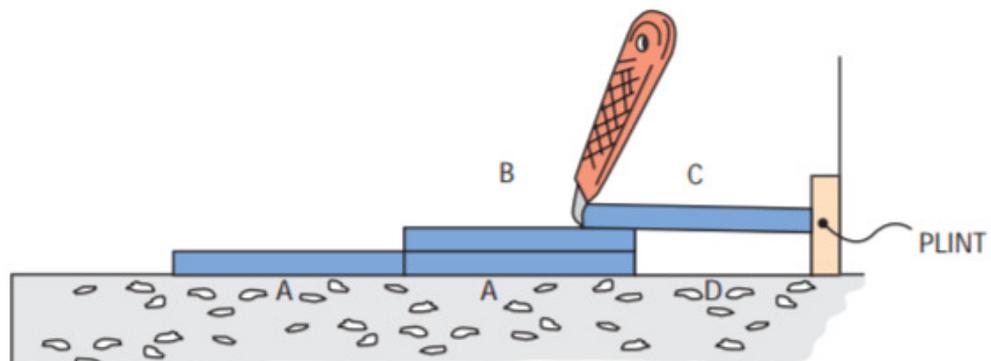
- The arrows on the reverse of every tile indicate the direction of pile lay.



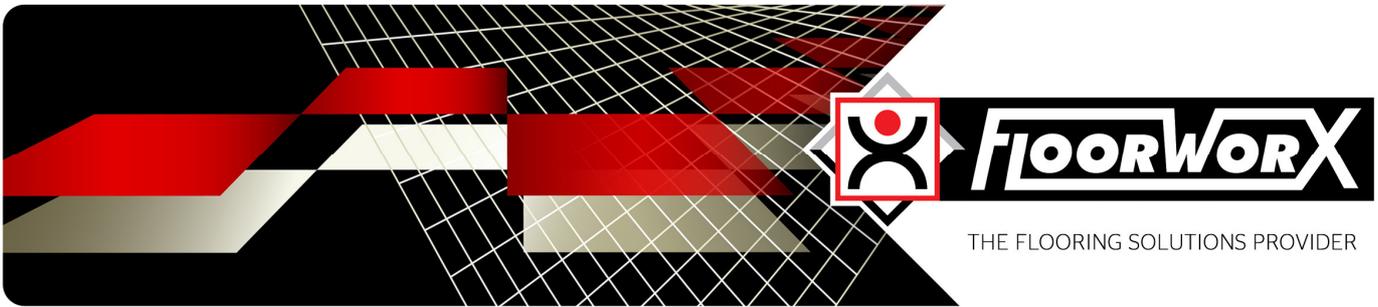
- The preference of the specifier/customer as too monolithic (broadloom), tessellated or other visual effect options should be confirmed before the tiles are installed. (Note. The term 'broadloom' is often used as an alternative description of monolithic and refers to the installation direction of the carpet tiles. It does not mean that the installation will be viewed as seamless).
- Monolithic format installations should, where possible, point towards the main light source. (Note. To prevent potential problems of deviation of wheeled traffic travelling across the dense pile of Flotex; it is strongly recommended that tiles and planks are laid with the pile running lengthways in the main direction of traffic when fitting in this format).
- It is recommended that with other installation formats a few tiles are dry laid to decide upon the optimum direction to suit the specific location requirements.
- The installation options which vary between product designs are indicated on product sample books and below.

### Cutting and Fitting

- Flotex tiles and planks can be easily cut using a utility knife. Tiles and planks must be laid butt jointed, fitted tightly and cut accurately at perimeters.
- To ensure a good fit to skirting boards cut the tile/plank using the methods shown in the diagram below, and place the cut edge against the skirting board. **Refer to Fig 1**
- When calculating the starting point, check to ensure that tiles can be installed without the need for narrow cuts, minimum 10 cm. (It may, therefore, be necessary to adjust the starting point)



**Fig 1**



## Installation

- The working area must be coated with the appropriate adhesive relative to the installation approach (Fully bonded or Semi- bonded)
- In the case of raised access floor panels, caution also needs to be exercised when applying the adhesive as to ensure that the adhesive whilst still wet, does not penetrate the joints between adjacent panels.
- Make sure that the tiles are installed tightly against each other. The backing must fit snugly so as not to squeeze any of the pile. (If the tiles/planks are pressed too tightly, lumps and warps can occur).
- Never start installing the tiles or planks against a wall. Always start from a calculated point in the room along a perpendicular line or chalk line.
- In offices start with the corridor and then install the rooms afterwards, in order to obtain a good connection.

As with all newly installed floor coverings Flotex tiles or planks should be protected from heavy traffic, particularly high point load wheeled traffic, for 24 hours and must not be washed for 48 hours after installation.

## Installing Flotex to a Staircase

Flotex tiles and planks are suitable for use on stairs, however, it is imperative that Nosing is always be used.

- It is permissible to secure sections of the tiles with a pressure-sensitive adhesive on the treads only, however, the preferred option would be to use a contact adhesive on both the treads and risers.
- Use FloorworX No 71 Contact adhesive only.
- On the tread, the pile should lay (arrows) towards the nose of the step.
- For the riser, the pile should lay (arrows) downwards towards the tread.

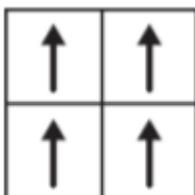
## Flotex tile and plank installation options

### Tile Range

Integrity<sup>2</sup>  
Complexity  
Pinstripe  
Stratus & Cirrus

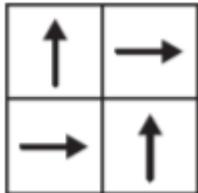
### Recommended laying options

Tessellated  
Tessellated; Brick  
Tessellated; Brick; Half drop  
Monolithic (Broadloom); Tessellated; Brick; Half drop



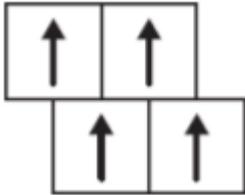
### Monolithic / Broadloom (One way)

The carpet tiles are installed in the same direction to create a uniform floor covering



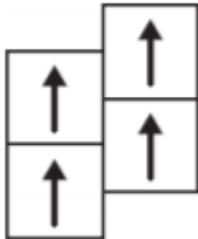
**Tessellated**

The arrow on the backside of the carpet tiles are alternately turned 90°



**Brick-bond**

Each tile is horizontally shifted half a row so that 4 corner points never coincide



**Half drop**

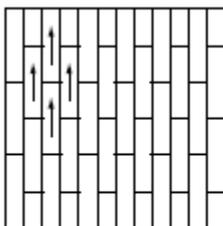
Each tile is vertically shifted half a row so that 4 corners points never coincide

**Plank Range**

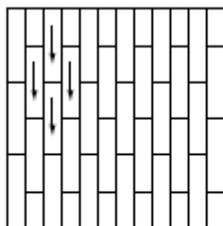
- Triad
- Box Cross
- Lava
- Seagrass
- Concrete
- Wood

**Recommended laying options**

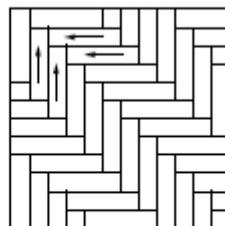
- Half drop, Herringbone, Weave
- Half drop, Random drop
- Half drop, Herringbone, Weave
- Half drop, Herringbone, Double Herringbone, Weave
- Half drop, Herringbone, Double Herringbone, Weave
- Half drop, Herringbone, Double Herringbone, Weave



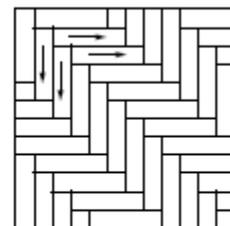
Half-drop installation 1



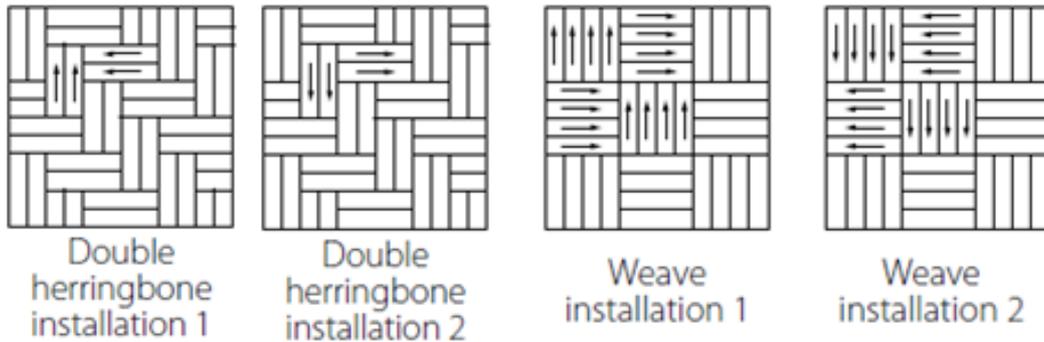
Half-drop installation 2



Herringbone installation 1



Herringbone installation 2



Please note that for each installation method above we have shown two images of each method with arrows pointing in different directions.

It does not matter in which direction the design is installed but it is important that once an installation method has been chosen all planks get installed in the same direction.

#### On completion of the installation

- The completed installation should be cleared of scrap material and debris, the floor vacuumed and any traces of adhesive residues removed from the floor and skirting's.

#### Maintenance

- If the optimum performance of any new floor covering is to be achieved, the correct cleaning and maintenance procedures must be used from day one. (**Note:** Upright vacuum cleaners with an electrically powered brush should be used on Flotex sheeting)
- **Cleaning and maintenance guides should be passed onto the main contractor, client or end-user as appropriate on completion of the installation, and before any hand over clean is started.**
- Cleaning and maintenance guides are available for FloorworX Technical Department or on our website: [www.floorworx.co.za](http://www.floorworx.co.za)

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