Installation Guidance Note: Flotex Tiles and Planks

General advice

The successful installation of Flotex tiles and planks, including the appearance, performance and durability of the installed floor covering will be determined to a large extent by the quality of the prepared subfloor and the conditions in which they are laid.

Forbo floor coverings are manufactured for internal use only. The product performance is not guaranteed for use in external environments.

The installation of Flotex tiles and planks should be carried out in accordance with BS5325:2001; Installation of textile floor coverings.

Always conduct moisture tests on *all* substrates. All ground-based level floors should have an effective moisture barrier.

Subfloors should be clean and free of all contaminants, smooth, sound, even and permanently dry.

Particular attention should be paid to the following:

- Irregularities or undulations in the subfloor can result in the bond of tiles or planks drifting during installation. Particular attention should be given to the preparation of the subfloor and surface regularity. Surface regularity should be within the SR1 surface regularity standard - 3mm under a 2m straightedge (BS8204-1:2003 +A1: 2009 Annex C).
- Any nibs, abrupt ridges or changes of level in the subfloor should be removed by sanding or grinding, or by localised application of a levelling compound.
- Contaminants can affect the adhesion of the new floor covering and/or cause migrating stains. It is therefore
 important that contaminants such as cleaning chemical residues, old adhesive residues and remains of old
 floor coverings such as residues of carpet tile backings are removed or, where permissible, isolated with an
 appropriate subfloor treatment.
- Raised Access Floors should be smooth, level, free of movement and clean. Degreasing may be necessary on steel faced panels (chemical cleaning agents should be thoroughly rinsed/neutralized after cleaning). All old adhesive residues must be removed.

Raised access flooring panels have a tendency to settle shortly after installation and this should be taken into account when considering the installation of the Flotex tiles and planks onto such flooring systems. Ridges between uneven raised access floor panels and/or gaps between adjacent panels will telegraph through to the finished tile installation over time and can cause lipping of tiles edges where they fall close to the joints between the panels below.

Raised access panels should be checked before commencing installation to ensure that they are close fi and level. Uneven or loose floor panels should be levelled and/or re-fixed before installing Flotex tiles or planks. Particular attention should be paid to joints in floor panels lying close to, or coinciding with, joints in the Flotex tiles or planks.

• **Old resilient flooring** - Problems associated with plasticizer migration from PVC materials can lead to dimensional instability in tiles and planks. All subfloors of this type must be removed before installation and the subfloor prepared in accordance with BS5325:2001.

If existing floor coverings cannot be removed contact Forbo Technical Services for further advice.

•Wood Block Floors - It is impossible to ensure that wood block floors are not loose or contain latent defects through aging. It is therefore strongly recommended that these are removed and that the subfloor is correctly prepared and, if necessary, a surface damp proof membrane or an asphalt screed applied before installation of Flotex planks or tiles.

In the event if any queries related to the above or the installation of Flotex tiles and planks on subfloors not listed above contact Forbo Flooring Technical Services for further advice before proceeding with the installation.



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Site conditions

Areas to receive flooring shall be free of other trades and adequately lit to allow for proper inspection of the substrate, installation and for final inspection.

It is essential that the laying area is at a steady temperature of 18 to 27°C for 48 hours prior to, during, and for 24 hours after installation. The material and adhesive should be conditioned in the same environment for at least 24 hours prior to the installation. Where the floor coverings have been stored or transported immediately prior to delivery in temperatures below 10°C the acclimatisation period should be extended to 48 hours.

Material inspection and storage

Use material from the same batch/dye lot. The use of different production batches will always result in visible shade differences. The batch number is clearly marked on the material packaging and must be checked before commencement of installation.

Prior to installation, Flotex tiles and planks 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 pre-installation damage if the material has been fitted.

Store Flotex tiles and planks in cartons stacked, maximum 5 cartons, ensuring that they fully supported and are lying flat.

Do not remove more tiles from the box than can be installed within the site working time conditions.

Flotex tiles and planks are occupier ready on completion of the installation. However, if the newly installed floor is going to be subjected to site traffic, particularly heavy, high point load wheeled traffic, the floor should be protected during this phase (see "on completion" at the end of this guide).

Underfloor heating

Flotex tiles and planks can be used in conjunction with under-floor heating systems. It is imperative that the underfloor heating systems have been commissioned and found to be functioning correctly prior to the floor finish being installed.

Ensure that the underfloor heating system is switched off 48 hours prior to the floor covering installation commencing and remains off for at least 48 hours after the installation is complete.

During this period, an alternative heating source should be provided, if required, to ensure that the area of installation is kept at a constant temperature of $18^{\circ}C - 27^{\circ}$.

When bringing the underfloor heating system back into service, gradually increase the temperature over several days by only a few degrees per day until the desired room temperature is reached.

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 de-bonding, joints opening, and on some occasions discolouring, all of which can occur within a long or short period of time.

For further guidance on installation over underfloor heating systems see Forbo Installation Guidance note: Installation over Underfloor heating and BS5325.

Adhesive recommendations and application

The following information is provided for general guidance. In all cases the adhesive manufacturers' full usage and application instructions should be consulted and followed before commencing the installation.

It is best practice to conduct an adhesive bond test before starting the installation. Bond testing will assist in identifying both the working characteristics of the adhesive (waiting and working time) for the site conditions and any potential bonding problems.

Flotex tiles and Planks must be adhered using a high grab, all-over tackifier adhesive system; Forbo Eurocol 542 Eurofix Tack Plus is recommended. If alternative third party products are to be used consult with the supplier for more information, guidance and warranty.

The tackifier adhesive must be spread evenly over the entire floor area with particular attention to edges – this will ensure any perimeter tile cuts are correctly bonded. Failure to achieve a correct bond across all full tiles/planks and tile/plank cuts may result in individual tiles/planks shifting and lifting.

Note: the tackifier must be applied with a suitable short pile roller to ensure full and even contact of the tile/plank backing with the adhesive.



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Where perimeter tiles/planks are not constrained by fixtures e.g. walls, edge strips etc., it is recommended that such tiles/ planks are adhered using a permanent adhesive; Forbo Eurocol 640 Eurostar Special is recommended.

In most applications Forbo Eurocol 542 tackifier adhesive will be sufficient for heavy commercial usage areas, however, where tiles or planks are liable to be subject to heavy static or dynamic loads they should be fully adhered using Forbo Eurocol 640 Eurostar Special.

Forbo Flooring recommends fully adhering Flotex tiles and planks in areas liable to be subjected to abnormal temperature variation in use, for example, retail premises with glazed window fronts, open spaces in offices with large, glazed areas, conservatories etc. The use of a high temperature adhesive that is compatible with the floor covering and the subfloor is recommended, such as Eurocol 543 Eurosafe Deco.

Adhesives must be applied according to the manufacturer's instructions and it is essential that tackifier adhesives are allowed to dry to a clear, tacky finish before laying the Flotex planks or tiles. Failure to do so could result in a permanent non-release bond.

Note: Highly absorbent subfloors such as sand/cement screeds and plywood etc. should be primed with Forbo Eurocol 044 Europrimer Multi. The primer should be allowed to dry fully before proceeding with the application of Eurocol 542.

Always clean away excess adhesive with a damp cloth before it is allowed to dry.

Note: Do NOT use bleaching agents or strong solvents as they can be harmful to both people and to your floor.

Installation

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 guidance along with relevant codes of practice where applicable. All Flotex tile and plank designs are 'free match' to allow a random aesthetic effect.

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, making some check measurements or dry laying a few rows of tiles will help to identify any potential problems or necessary adjustments to avoid small perimeter cuts.

Pile Direction

The arrow marks on the reverse of every tile/plank indicate the direction of pile lay. The preference of the specifier as to desired visual effects must be confirmed before tiles/planks are installed.



When laying tile or planks in a monolithic format follow the direction of the arrows, which should, where possible, point towards the main light source**.

Options for the tile and plank installation will vary between product designs. The installation options are indicated on product sample books and below, but if there is any doubt check with Forbo Flooring prior to installation.

***Note:** the term 'broadloom' is often used as an alternative description of monolithic. Whichever term is used, it refers to the installation direction of the carpet tiles/planks. It does not mean that the installation will be viewed as seamless.

****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 monolithic format. We suggest that with other installation formats, some tiles are dry laid to decide upon the optimum direction to suit the specific location requirements.



Cutting and Fitting

Flotex tiles and planks can be easily cut from the top surface using a utility knife. Tiles and planks must be laid butt jointed, fitted tightly and cut accurately at perimeters.

Laying Flotex tiles and planks to a Staircase

Flotex tiles and planks are suitable for use on stairs, following these guidelines:

The surface of both the treads and risers should be levelled and prepared to meet the same subfloor standards as those required of the main subfloor.

- Nosing should always be used. The tread of the nosing should be slip resistant and of a colour that provides sufficient visual contrast for people with impaired vision.
- Separate pieces of Flotex tile/plank must be used for each tread and riser.
- 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.
- Tiles and planks should be fitted to the treads using a permanent bond adhesive -Forbo Eurocol 640 Eurostar Special is recommended.
- Tiles and planks should be fitted to the risers using a solvent free contact adhesive or, subject to the adhesive manufacturers' approval, a permanent bond adhesive.

Note: the setting out and balancing of tile/plank installations, particularly on stairs and landings, should be confirmed with the end user/main contractor/designer before commencement of the installation.

On completion of the installation

First impressions may have more impact on the client than hours of skilled fitting.

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 skirtings.

Note: Upright vacuum cleaners with a mechanically powered brush should be used on Flotex tiles and planks.

If the floor covering is to be protected from other trades or site traffic prior to project completion, a protection product should be chosen that is appropriate for the type and level of traffic likely to be experienced.

Note: tackified adhesive backed protective sheets can leave adhesive residues which attract dirt and soil once removed. For this reason such protective products are not recommended.

If the optimum performance of any new floor covering is to be achieved, it is important that the correct cleaning and maintenance procedures are used from day one.

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.

If in any doubt contact us:

Forbo Flooring UK Ltd Tel: 0800 121 4780 Samples: 0800 731 2369 Info.flooring.uk@forbo.com www.forbo-flooring.co.uk

Additional Reference documents and information:

Forbo Floor Coverings Installation Guide: www.forbo-flooring.co.uk BS8203:2017 The CFA Guide to Contract Flooring (Tel: 01159 411126)



Flotex Tile installation options:



Tessellated



Monolithic/Broadloom





Brick

Half drop

Flotex Tile Range

Recommended laying options

Tessellated

Integrity² Complexity

Tessellated; Brick

Stratus, Cirrus, Colour Br

Broadloom; Tessellated; Brick; Half drop



Flotex Plank installation options:



Half Drop 1



Double Herringbone 1





Half Drop 2



Double Herringbone 2



Weave 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.

Flotex Plank Range	Recommended laying options
Concrete, Marble, Seagrass, Wood, Ombré, Montage	Halfdrop, Herringbone, Double herringbone, Weave
Converge, Frameweave, Refract, Triad	Halfdrop, Herringbone, Weave
Box Cross	Half drop, Random drop





Random Drop 2

Random Drop 1





Herringbone 1

Herringbone 2





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