

Installation Guidance Note: Marmoleum Modular

General Advice

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. As with any resilient floor covering irregularities in the subfloor will be apparent in the finished flooring.

It is important to ensure that all recommendations for substrate and site conditions are met prior to 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.

Subfloor preparation should be carried out in accordance with BS8203:2017 Code of practice for the installation of resilient floor coverings. Areas to receive flooring should be clean, free from other trades, fully enclosed and weather tight. Subfloors should be clean and free of contaminants, smooth, sound and permanently dry.

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

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

Surface regularity should be within the SR1 surface regularity standard – less than 3mm under a 2m straightedge (BS8203:2017 section 6.2.3 and 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.

Areas to receive flooring shall be 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.

Prior to installation rolls 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.

Use material from the same batch/dye lot and install in roll number sequence. 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.

Note: For areas requiring a sustainable slip resistance product please visit our wetroom range – **Wetroom Solutions**



FLOORING SYSTEMS

Existing floors and substrates

Concrete and screeds bases:

It is important that the base is clean, dry, smooth, even and free from loose gritty particles. It is recommended to apply a 3mm application of smoothing compound.

All ground based level floors should have an effective damp proof membrane.

If any doubt exists a proprietary surface applied damp proof membrane (DPM) or other appropriate moisture protection system should be used (CFA Guide to Contract Flooring).

Note: *floor slabs circa 1965 or earlier are unlikely to contain an effective integral damp-proof membrane. Old floor slabs without a DPM may provide a moisture reading below 75% if they have previously been covered with a permeable floor covering such as vinyl composition tile or carpet. Potential ground water problems may not, therefore, come to light until the base is covered with an impermeable floor covering.*

Asphalt floors:

Should be clean, sound and free from any cracks. The base should be primed (if required by the smoothing compound manufacturer) and covered with a minimum 3mm thickness of smoothing compound suitable for this type of base.

Quarry tiles or ceramic tiles:

Should be checked to ensure that there are no loose or cracked tiles, thoroughly cleaned and degreased, primed and levelled with a 3mm thickness of a suitable smoothing compound.

Note: *Old quarry tiles were often laid on subfloors without a suitable damp-proof membrane. This should be checked prior to installation of the floor. If there is no integral DPM, or if any doubt exists, then a surface DPM must be installed*

Expansion joints:

Floor coverings should never bridge these joints, the joints need to be brought through to the final floor finish, floor coverings should stop either side of the expansion joint.

If required a suitable expansion joint cover strip can be used to cover the joint

Existing vinyl and cork flooring:

Should be taken up and any remaining adhesive cleaned off the floor. If the old adhesive residues cannot be completely removed or if the floor covering is to be fully adhered a minimum 3mm thickness of a suitable smoothing compound should be applied in accordance with the manufacturer's recommendations.

In older properties some tiles (and adhesives) may contain asbestos. Where it is difficult to establish whether or not these materials contain asbestos, specialist advice should be sought before attempting to remove.

Note: *Attention is drawn to Asbestos and man-made mineral fibres in buildings: practical guidance, published by DETR [7], which gives advice on the precautions to be taken when removing existing flooring containing asbestos." (BS8203:2017)*

Wooden floors:

Existing Floorboards:

Loose or uneven floorboards should be secured, all protruding nail heads should be hammered flush and damaged boards replaced. Where required high spots should be sanded flush and uneven or hollow areas levelled with an appropriate smoothing compound prior to covering with plywood.

Chipboard, hardboard, Particle Board:

Marmoleum Modular should not be directly adhered to the above substrates. Particle board subfloors and all wood panel based floating subfloors should be overlaid with Plywood. (Refer to BS8203:2017 for Plywood performance specifications and installation requirements).

Wood Blocks:

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 applied. (put on all guides with material to be adhered down.)



Underfloor heating

Forbo flooring products 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.

It is imperative that the underfloor heating systems have been previously 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.

During the period of decommissioning of the underfloor heating system, an alternative heating source should be provided, if required, to ensure that the area of installation is kept at a constant temperature of 18°C– 27°C.

Where electric underfloor heating systems are being used their compatibility should be checked with the supplier before installing Marmoleum Modular. Mesh or wired systems should be embedded with a layer of smoothing/levelling compound. The manufacturer of the smoothing compound should be consulted for advice on suitable products and recommendations for the minimum application thickness.

The temperature of the substrate must not exceed 18°C during the installation of the flooring material.

The temperature of the underfloor heating system can be increased 72 hours following the installation. When raising the floor temperature, do so gradually so the substrate and flooring material can adapt to the temperature change together. If necessary, an alternate heating source should be used to maintain the room temperature at a minimum of 18°C prior to, during, and for 72 hours after installation.

Note: Care should be taken when placing rugs or items of furniture (that do not allow hot air circulation) onto underfloor heated floors. Placing these item types onto the underfloor heated floor can create hot spots and thermal blocks, resulting in damage to your Marmoleum Modular.

Adhesive recommendations

When installing Marmoleum Modular a hard setting low emission EC1 adhesive is recommended, such as Forbo Eurocol 611 Eurostar Lino Plus. If alternative products are to be used consult with the supplier for more information, guidance and warranty. Insert here the country or regional recommended Forbo Flooring adhesives.

Use a B1 2mm V notch trowel to apply the adhesive.

Note: Trowels will wear during use, check the trowel both before and during use to ensure that the proper, specified trowel notch is used and maintained.

Contact Forbo Flooring Technical Services department for further advice on adhesives and installation in areas liable to be subjected to abnormal temperature variation in use, for example, conservatories etc.

If alternative supplier adhesives and primers are to be used consult with the supplier for usage information, guidance and warranty.

Installation/Fitting

For the installation direction of Marmoleum Modular please note the following :

Square tiles should be installed in alternating directions (tessellated).

Rectangular tiles may be installed in any direction.

Tiles and planks do not require shuffling prior to installation, but dry laying will identify best use of design.

Like the natural material, some designs will vary in tone and colour. This is intentional and gives the floor a more authentic appearance.



FLOORING SYSTEMS

Setting out

Forbo tile products are installed using conventional tile installation techniques.

The correct starting point for setting out a tiled floor is traditionally the centre of the area – although this may not be the final starting point when tile laying begins. Some adjustment of the starting point may be required, for example, to avoid small perimeter cuts, where the tiles are to be laid with a border, or with designs such as Hungarian Point.

In corridors and small spaces, it may be simpler to work lengthwise from one end, using the centre line as a guide.

The centre line is drawn as follows: a chalk line is snapped from centre of wall **A-B** (= **E**) to the centre of wall **C-D** (= **F**). The centre of line **E-F** is found (=). Draw a perpendicular line through **M** using the 3:4:5 method to establish **G** and **H** (Figure A).

Starting at centre point **M**, measure out lengthwise and width wise to the walls. Wherever possible, cuts of less than 60mm should be avoided as these are more likely to come loose at some stage in the life of the installation.

Adjust the position of lines **E-F** and **G-H** if necessary.

Laying tiles or planks

Begin laying tiles at the starting point, ensuring that the tile is laid exactly along the layout lines. If the first few tiles are not installed accurately, the entire installation will be affected.

Note: *In a large area, two or more fitters may be placing tiles at the same time. As finger pressure in butting the tiles or planks together may be slightly different, we suggest to start from a common point and work away from it to avoid tiles or planks going out of bond.*

Lay the tiles into the adhesive after the required waiting time and within the open time applicable to the adhesive being used and roll with a 68kg roller, rolling in all directions to ensure a firm bond. It is important to only spread sufficient adhesive that can be covered within the open time of the adhesive.

Note: *the adhesive must be spread evenly over the entire floor area with particular attention to edges – this will ensure that the sheet is fully bonded at the perimeters.*

Areas that cannot be rolled with the large roller e.g. abutments such as door frames or skirting boards should be rolled with a hand roller or pressed into the adhesive with a rubbing hammer.

Remove fresh adhesive residue immediately with a clean white damp cloth. Dried adhesive residue can be removed with a clean white cloth and soapy water.

When laying fully adhered tiles or planks, the time it takes to mark and cut the border tiles must be taken into consideration when planning the installation. Without adequate planning, it is likely that the working time of the adhesive in the area of the border tiles will be exceeded before the tiles are installed, which will result in an inadequate bond of the border tiles. The successful installation of border tiles is best accomplished by following one of two strategies:

When laying out tile, determine the edge of a field tile a comfortable distance from each wall and then snap chalk lines around the perimeter of the room. When spreading adhesive, use these lines as a guide to stop spreading adhesive and install the field tiles up to the adhesive spread lines. Once the field tiles have been installed, the border tiles and be “dry” fitted (before spreading the adhesive). After the border tiles have been cut, adhesive can be applied in the area of the border tiles and the tiles can be placed into the adhesive.

Plan the sequence of spreading adhesive so that the border tiles can be cut and placed into the adhesive before the adhesive working time has been exceeded.

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

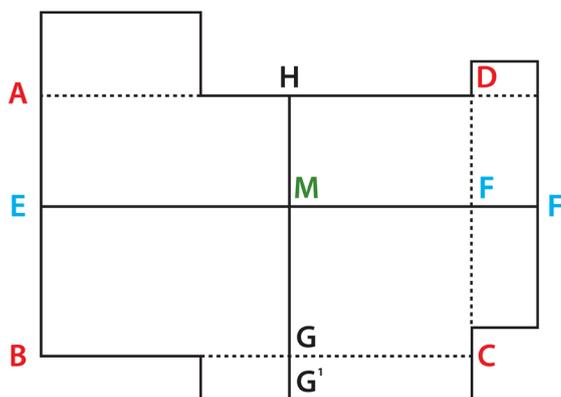


Figure A

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 swept or vacuumed, and any traces of adhesive residues removed from the floor and skirtings.

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 and the potential for impact, scratching or indentation damage.

In many cases it is customary for the initial floor preparation to be left, or subcontracted, to a professional cleaning and maintenance contractor who will have the staff and equipment to do the job thoroughly.

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 for all Forbo Flooring linoleum products are available for download: www.forbo-flooring.co.uk/marmoleumdownloads

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)