Installation Guidance Note: Allura and Enduro Click

General Advice

As with any floor covering, 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.

The installation of Enduro and Allura Click should be carried out in accordance BS8203:2017 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, even 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.

The maximum tolerance in terms of flatness and evenness of the substrate is a 5mm deviation under a 2m straight edge (measured by moving the straight edge in all directions across the substrate) and 1mm under a 20cm straight edge.

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.

It is essential that the laying area is at a steady temperature of minimum 18°C for 48 hours prior to, during, and for 24 hours after installation. The material 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 10oc the acclimatisation period should be extended to 48 hours.

Enduro and Allura Click can be installed in most locations without adhesive. The maximum surface of any single area installation, without the use of expansion joints, is 150m². The use of Forbo Click underlay is recommended in all loose lay installations.

Note: It is advised to fully adhere Enduro and Allura Click directly to a prepared subfloor (without underlay) in areas liable to be subjected to abnormal temperature variations or in extreme direct sunlight locations, for example, premises with large south facing glazed areas, conservatories etc.

Prior to installation panels 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. 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.

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



Acceptable substrates for loose lay option:

Enduro and Allura Click may be installed on the following substrates (subject to the conditions in this guide):

New or existing concrete or cement screed.

New or existing wood panel or particle board.

Existing ceramics tiles.

Existing in-situ floor finishes (resin) at least 2mm thick.

Existing floor paint.

Existing compact resilient floor coverings (semi-flexible tiles, vinyl asbestos tiles, sheet vinyl flooring and linoleum).

Raised access floors.

Existing wood block floors (on upper floors only).

For any subfloor not listed above or if any doubt exists, contact Forbo Flooring UK Ltd.

Concrete slabs or cementitious screeds: new and existing ground floor slabs must be cast on a damp-proof membrane in accordance with the requirements of BS8204. If an effective damp proof membrane is not present or any doubt exists, a surface damp proof membrane should be applied.

Enduro and Allura Click can be laid on substrates with cracks less than 3mm wide on unheated subfloors, provided that there is no difference in level. For cracks that do not meet these criteria contact Forbo Flooring UK Ltd for further guidance.

Where required, smoothing and levelling compounds rated for heavy traffic areas should be applied to screeds and slabs. Smoothing compounds are not required for clean, sound and smooth concrete surfaces, provided that they satisfy flatness tolerances stated above.

If a smoothing compound is not being applied to the surface of the slab/screed a suitable primer should be applied to keep the subfloor dust free.

Wood panel substrates (tongue-and-groove boards) - plywood or particle board floors should be prepared in accordance with BS8203:2017. Differences in height between boards greater than 1mm should be sanded flush.

Existing ceramics tiles: laid on a sound concrete or cement screed substrate, soundly adhered to the bedding screed (sealed ceramics tiles) or substrate (adhesive-bonded ceramics tiles) require no further treatment where the tiles are level and the grout joint width is less than 8mm and no more than 3mm deep. Small, localised differences in level between tiles may be repaired/levelled with a suitable smoothing/levelling compound.

Where the above requirements are not met, a general heavy duty self-smoothing/levelling compound suitable for the room's intended purpose should be applied across the entire surface area.

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.

Existing in-situ resin floor finish: the old finish must be sound and fully bonded and at least 2mm thick. If flatness, cleanliness and bond requirements are not satisfied, the old in-situ floor finish must be removed, and the subfloor prepared in accordance with the national code of practice.

Floor paint: existing paint finishes should be clean and sound. Sanding is not necessary if the paint is sound.

Old flexible floor coverings: Existing compact resilient floor coverings (semi-flexible tiles, vinyl asbestos tiles, sheet vinyl flooring and linoleum) should:

Be sound and bonded tightly to the sub floor.

Free of any loose particles such as grit or any solid debris.

Have loose or broken areas removed and replaced with sound material or levelled with a good quality smoothing compound are level within the stipulated tolerance requirements.

If any doubt exists, or where full adhesion is required, existing floor coverings should be removed.

Note: Acoustic floor coverings in general, including cushioned pvc and acoustic linoleum floor finishes must be removed, and the subfloor prepared in accordance with BS8203:2017.



Note: If existing vinyl asbestos tiles are to be removed the work should be carried out in accordance with the latest Health and Safety guidelines and disposed of in accordance with local requirements for asbestos containing materials.

Note: Enduro and Allura Click can only be laid on a substrate that has previously received only a single layer of resilient floor covering. The performance rating of the old floor covering must satisfy the new impact sound reduction rating required, particularly if the room is to be used for a different purpose.

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 Enduro and Allura Click onto raised access flooring systems. Ridges between uneven raised floor panels may telegraph through to the finished tile installation over time and can cause lipping of tiles edges where they fall close to even joints between the panels below.

Note: Incidental low-level light will exaggerate any unevenness in the subfloor.

Where the above conditions cannot be met, or any doubt exists, Forbo recommend that raised access floor should be overlaid with plywood in accordance with the national code of practice for installation of resilient floor coverings.

Textile floor finishes: must be removed, and the subfloor prepared in accordance with national codes of practice where applicable.

Existing wood block floors: Enduro and Allura Click may be installed on existing wood block floors except for wood blocks laid at ground floor level. Blocks should be securely bonded to the base, smooth, even and free of any oil or wax based finishes. If necessary, the blocks should be sanded to remove any unevenness between the blocks.

If any doubt exists, contact Forbo Flooring Technical Services for advice.

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 $18^{\circ}\text{C} - 27^{\circ}\text{C}$.

Where embedded electric underfloor heating systems are being used their compatibility should be checked with the supplier before installing Enduro and Allura Click.

Surface applied mesh type electric underfloor heating systems should be covered 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.

Note: These systems should never be placed directly under the finished floor covering.

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.

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.

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 Enduro and Allura Click.



Installation - Loose lay method

Enduro and Allura Click are advised to be installed with the Forbo Click underlay. Forbo Click underlay offers a reduction of walking and impact sound levels as well as an increased ease of walking comfort under foot.

Note: The failure to use Forbo Click underlay or the use of alternative underlays that have not been tested or approved by other manufacturers, can lead to warranty and guarantee claims being excluded in the event of damage.

The Forbo Click underlay is loose laid in the same direction as the panels. The protective film should be peeled back before the installation of the panels. This should be done gradually during the installation staying slightly ahead of the panel installation.

In most circumstances Enduro and Allura Click may be laid in individual areas up to 150 square metres without the need for movement joints However, the following should be noted:

When laying in long, narrow rooms, movement profiles should be used at 15m intervals, ensuring a 5mm expansion tolerance is allowed.

For areas which are separated by fixed structural components, for example, pillars, separating walls, doorways, an expansion tolerance of 5mm should be allowed.

When installing skirting boards or edging profiles (such as door strips or quadrants), never fix the skirtings or edging profiles to the floor covering.

A continuous gap of 5mm must be maintained at the perimeter and around all fixed objects in the room.

When acceptable to the end user, skirting and architraves may be undercut to create the expansion gap.

Note: Enduro Click should not be fixed as any part of the building work. The floor covering must not be fixed to the subfloor, to furniture or any other fixed built in components.

For more information on expansion and movement joints please visit – **Quantum profiles.**

Setting out

Install the panels with the face (short) side towards the room's main light source. The optimum inherent stability of the installed floor will be achieved by installing the panels lengthways in long, narrow rooms.

Reminder - An expansion gap of 5mm is required around the perimeter and any fixed components.

Laying and cutting panels

Enduro and Allura Click can be cut with normal installation tools such as utility knives. In good site conditions the product can be successfully cut by scoring several times from the top surface of the tile or plank with a utility knife and a straight blade. After scoring with a knife, bend the tile back long the cut line and complete the cut through the remaining thickness from the back of the tile.

Warming the product surface gently with a hot air gun may make cutting easier, when cutting and fitting around shapes and pillars, for example. Cutting of tiles with a power cutting tool is also suitable.

Installation direction - always work from left to right in the installation area with the tongue sides of the panel pointed to the wall.

Install the first panel with the tongue side pointing to the wall ensuring that a 5mm gap is left between the face and side of the panel and the wall.

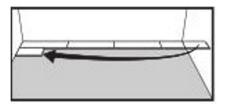


Lay the next panel to the first making sure that the face side tongue and groove connections fit exactly on top of one another. Lock them by slightly tapping them with a white (non-marking) rubber hammer.





Continue to lay the remaining tiles in the first row. Cut the final panel of the first row, allowing for a 5mm gap between the end of the panel and the wall. The length of the last panel should be at least 30cm. The offcut from the last panel in this row should also be at least 30cm to be used as the first panel of the next row.



Tip: use leftover pieces of the floor covering as spacers.

Note: The minimum cut length at the start and end of each row should not be smaller than 30cm. If this cannot be achieved when starting with a full first panel, the first panel should be cut to achieve the required minimum length of the last panel in the row.

Set this panel into the groove of the first panel of the first row at an angle of approximately 300 and lower it with slight pressure against the previous row.

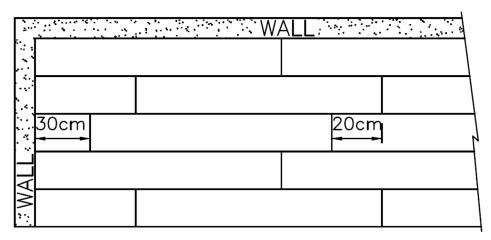


Take the next panel and insert it, also at an angle of 30°, longitudinally into the panel of the first row that is already lying flat on the floor. Guide the panel so the joint of the face side (short) aligns with joint of the head side of the previously laid panel and lock the face joints with a white rubber hammer as described above.

Continue in this manner to install all the remaining rows. Ensure the face side (short) joints are staggered between the adjacent rows by at least 20cm in order to achieve an optimal installation.

When installing the last row, the distance between the wall and the previously laid row is measured and the panel width is cut to this size (remember to allow for the 5mm wide expansion perimeter gap).

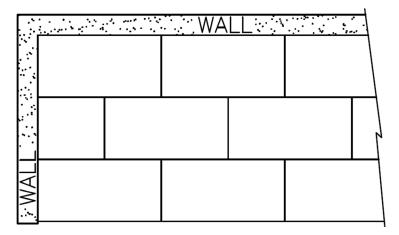
Note: The last row should preferably be at least half a panel's width. Reduce the width of the first row of panels if necessary to achieve this.



Short 61×30.5 cm planks: should be installed 'brick' pattern off-set every tile. The offcut from the last panel in a row should be at least 30cm to be used as the first panel of the next row.



Allura Enduro Click 07.2021



Short 61 x 30.5cm planks: should be installed 'brick' pattern off-set every tile. The offcut from the last panel in a row should be at least 30cm to be used as the first panel of the next row.

Any expansion gaps must not be filled with electric cables or similar material.

The use of silicone sealant is only allowed in the following circumstances:

Perimeter joints in rooms where wet spillages are expected such as washrooms or kitchens, can be filled with silicone sealant to prevent water penetrating through the expansion gaps under the laid surface.

Door frames: where door frames cannot be under cut, we recommend 3mm expansion gaps which can be filled with silicone.

For a demonstaiton on how to install visit: Allura / Enduro Click installation

Installation - Fully adhered method

Adhesive recommendations (fully adhered)

Enduro and Allura Click are installed without the use any type of adhesive except in unshaded direct sunlight locations such as: conservatories, areas with large, glazed windows. (subject to constant sunlight)

The recommended adhesive for use in these high temperature areas is Eurocol 543 Eurosafe Deco. Use a 1.5mm x 5mm V notched 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.

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

The open time of the adhesive will depend on site conditions and porosity of the base. 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. For a more porous subfloor the use of a primer may be needed, such as our Eurocol 044 Europrimer Multi.

If alternative supplier adhesives are to be used consult with the supplier for usage information, guidance and warranty. Pressure sensitive adhesives are not recommended for use with Enduro or Allura click.

Note: Pressure sensitive adhesives are not recommended for use with Enduro or Allura click.

Setting out, Laying and Cutting panels – Please follow above methods.

Note: Do not use the Forbo Click Underlay with a fully adhered method of installation.



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 68 kg 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.

On completion of the installation or within an hour of placement, the tiles must be re-rolled for a second time to ensure a firm adhesive transfer and bond.

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

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

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 if fully adhered, any traces of adhesive residues removed from the floor and skirtings.

If the floor covering is to be protected from other trades or 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.

Gliders suitable for hard floors should be fitted to moveable furniture. Office chairs and other items of rolling furniture should be fitted with Type W castors.

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 products are available for download on the website. www.forbo-flooring.co.uk/downloads

Cleaning and maintenance guides should be passed onto the 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:

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Additional Reference documents and information:

- Forbo Floor Coverings Installation Guide: www.forbo-flooring.co.uk
- BS8203:2017
- The CFA Guide to Contract Flooring www.cfa.org.uk

