Installation Guidance Note: Enduro Click Decibel

General key points

- Enduro Click Decibel can be installed over most existing (firm and rigid, non-acoustic) subfloors including ceramics. See section "Acceptable substrates".
- Maintain a continuous gap of +/- 5 mm at the perimeter and around all fixed objects in the room.
 At doorways or open walkways with a larger gap than 5 mm, it is advised to use double sided plasticizer resistant tape.
- Make sure the short sides of the tiles are properly aligned and firmly connect the locking system by
 using a rubber- / dead blow hammer. After each row of installation, the length side connection is also
 required to be secured by tapping gently without damaging the profile. It is advised to use a small
 cut piece of the length click profile.





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General advice

The appearance, performance and durability of the installed floorcovering 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.

The installation of Enduro Click Decibel should be carried out in accordance national code of conduct for the installation 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.

The maximum tolerance in terms of flatness and evenness of the substrate is an 5mm deviation under 2m straight edge in the length direction of the installed planks or tiles.

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 floorcoverings have been stored or transported immediately prior to delivery in temperatures below 10°C the acclimatisation period should be extended to 48 hours. Enduro Click Decibel should be removed from their pallets and acclimatized in the laying are stacked no more than 5 boxes stacked on top of each other.

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 Click Decibel 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

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

- new or existing concrete or cement screed substrate
- new or existing wood panel or particle board substrates
- existing ceramics tiles
- old in-situ floor finishes (resin) at least 2 mm thick
- old floor paint
- old compact resilient floor coverings (semi-flexible tiles, vinyl asbestos tiles, sheet vinyl flooring and linoleum)

For any subfloor not listed above or if any doubt exists, contact Forbo Flooring technical services.

Concrete slabs or cementitious screeds: new and existing ground floor slabs must be cast on a damp-proof membrane in accordance with the national code of practice for the installation of resilient floor coverings if applicable. If an effective damp proof membrane is not present or any doubt exists, a surface damp proof membrane should be applied.

Wood panel substrates (tongue-and-groove boards) - plywood or particle board floors should be sound and bonded tightly to the sub floor and be prepared in accordance with the National Code of practice for the installation of resilient floor coverings. Differences in height between boards greater than 2mm 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 5 mm and no more than 2mm deep. Small localised differences >2mm 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.

Existing in-situ resin floor finish: the old finish must be sound and fully bonded and at least 2 mm 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: compact vinyl sheet and tiles or compact linoleum should:

- Be sound and bonded tightly to the sub floor.
- Have loose or broken areas removed and replaced with sound material or levelled with a good quality smoothing compound.
- Are level within the requirements stipulated

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

If any doubt exists, existing floor coverings should be removed.

Note: (flexible) floor coverings such as acoustic floors, but also resilient (wood)panels that are not rigid and firm must be removed.

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 is complete.

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

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

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.

Installation

General

Enduro may be laid in individual areas up to 250m² without the need for movement joints. In case of installations >250m² always contact your local Forbo technician.

A continuous gap of +/-5 mm must be maintained at the perimeter and around all fixed objects in the room. Note: Enduro Click Decibel 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.

When laying in extremely long, narrow rooms, movement profiles should be used at 25m intervals.

Rooms / areas which are separated by rising structural components, for example, pillars, separating walls, doorways, should be separated by expansion joints of at least +/- 5 mm at the same level as the structural components.



When installing skirting boards or temporary and/or edging profiles, never fix the borders or profiles to the floor covering. Finishing at doorways: at doorways or open walkways between large adjacent spaces the flooring should be finished at the door/space threshold with a suitable proprietary edging profile.

Note: Forbo Flooring recommends to fully adhere Enduro Click Decibel 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.

Laying and cutting panels

Enduro can be cut with normal installation tools such as utility knives. Warming the product will make cutting easier, when cutting and fitting around shapes and pillars, for example, but 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.

In large areas cutting of perimeter tiles with a power cutting tools is also suitable.

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

Ensure a continuous expansion gap at +/- 5 mm wide is maintained at the room perimeter and to all fixed objects in the room, e.g. Pipe passageways, door frames etc. Tip: use leftover pieces of the floor covering as spacers. In principle, this expansion joint must not be covered with silicone, electric cables or similar material.

Measure the room where the flooring it to be installed. Draw a straight line (parallel to the setting out line) on the floor that is minimum $\frac{1}{2}$ width for planks, or $\frac{1}{3}$ width for tiles, from the starting wall. Make sure that also a minimal width $\frac{1}{3}$ of the tile is to be installed at the other side of the room to prevent small cut pieces.

- Install the first panel with the length sides tongue pointing to the wall and lay all other panels to the first panel against the straight drawn line. Loosely connecting the short sides (so the tiles can be easily removed for cutting.)
- Using a panels width and draw a line with a pencil on the installed panels along the line while following the contours of wall.
- Cut the panels over the length and re-install the planks against the wall (allowing 1-3mm expansion gap).

Make sure that the short side tongue and groove connections fit exactly on top of one another. Lock them by firmly tapping with an anti-rebound mallet to properly secure the click connection on the short side which is most crucial part of the click connection! The resilient product construction of Enduro Click Decibel can handle use of the anti-rebound mallet easily, sufficient force can be applied when hammering down the short side click connection.

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

- Perimeter joints in small rooms where wet spillages may be expected such as washrooms or kitchens up to 10sm, can be filled with silicone in order to prevent water penetrating through the expansion joints under the laid surface.
- For all larger areas, we recommend preparing the joint areas with sealing tape first and subsequently filling them with silicone mass and/or using a skirting board with a sealed lip.
- Door frames: with door frames that cannot be shortened, we recommend 5 mm expansion joints which can be filled with silicone using an infill strip. If door frames need to be shortened, please also ensure an expansion joint of +/- 5 mm to the wall. Install the first panel with the tongue side pointing to the wall and attach all other panels to the first panel.



Make 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 rubber hammer.





Continue to lay the remaining tiles in the first row. 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. 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. Slide the panel as close as possible to the short side of the previously laid panel and lock the face joints with a rubber- / dead blow mallet as described above.









Note: Try to prevent short side connections directly on top of or close to seams from the subfloor i.e. ceramics.

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 30 cm in order to achieve an optimal installation.

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

Note: the last row should preferably be at least half a panel's width.

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.

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 casters.

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 products are available for download on the website.

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.



Use Entrance Systems

As much as 80% of dirt entering a building is brought in by foot traffic. Entrance flooring systems of an appropriate size (ideally more than 6lm) and quality should be used. Forbo Coral or Nuway entrance flooring systems, are independently proven to remove and retain up to 94% of all dirt and moisture entering a building by foot traffic; reducing maintenance costs and maximising appearance retention of adjacent flooring products as well as reducing slip risk. As with any dirt removal system all entrance flooring systems should be regularly cleaned to release the dirt which has been removed.

If in any doubt contact us: question@forbo.com

