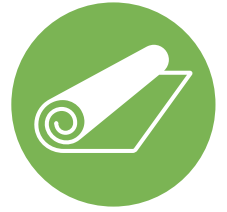


Instructions for laying linoleum:

MARMOLEUM ROLL GOODS



PREVIEW

Linoleum from Forbo can be laid on any subfloor that is ready for laying. The substrate must be sound, load-bearing, permanently dry and level.

In addition, the requirements of the BEB leaflet "Assessment and preparation of substrates - heated and unheated floor constructions" must be observed. Rooms without basements (substrates in contact with the ground) must be sealed against rising damp in accordance with the standards on site.

Residual impressions due to high point loads, which are particularly visible in grazing light, cannot be completely avoided with resilient floor coverings. However, these can be reduced to a minimum by the selection and application quantity of the adhesive, proper processing and, last but not least, the use of suitable chair and furniture glides (rollers) in accordance with EN 12529. Likewise, the color selection of the floor coverings and the lighting conditions in the rooms where they are to be installed also have a corresponding influence. The above factors must be taken into account when selecting the auxiliary materials (filler, adhesive, etc.) and, if necessary, coordinated with the client.

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NOTES

The relevant **national regulations** apply:

Germany: DIN 18 365 "Floor covering work" / DIN 18 299 "General regulations for construction work of all kinds" / DIN 18 202 "Dimensional tolerances in building construction" / Code of Practice TKB 4 Adhesive bonding of linoleum coverings.

Austria: ÖNORM B2232 "Screed work-work contract standard" / ÖNORM B 2236 "Adhesive bonding of floor coverings-work contract standard" / DIN 18 202 "Dimensional tolerances in building construction".

Switzerland: SIA Standard 251 (Floating screeds in interior areas) / SIA Standard 253 (Floor coverings made of linoleum, plastic, rubber, cork, textiles and wood).

Forbo

FLOORING SYSTEMS

PREPARATION

1. In order to achieve optimum processing conditions, the subfloor temperature must not fall below 15 °C. The room temperature must be at least 18 °C. The relative humidity should not exceed 65 %. The linoleum and all auxiliary materials must have a minimum temperature of 18 °C.

2. Before installation, check whether the linoleum comes from a production (see roll labels). To avoid color or pattern deviations, the rolls are to be sorted according to their rolls should be laid in ascending or descending order according to their numbers. Rolls in excess of 20 should be avoided. We recommend to keep the labels until the final inspection. Possible color deviations in the covering can only be complained about prior to installation. Transport damage can also only be within the known time limits.

3. After the rolls have been unpacked, they are roughly cut to size. Cut the sheets with an allowance of at least 1 cm per linear meter but not more than 10 cm per linear meter. Due to production production, hanging bumps may occur.

These are located approximately in the middle of a full roll. Care must be taken that these are not cut when the sheets are cut to length. The linoleum sheets must then be rolled up loosely and allowed to acclimatize in an upright position for 24 hours.



FLOOR HEATING

Forbo floor coverings are suitable for use on underfloor heating, the maximum surface temperature of the substrate must generally not exceed 27 °C. When laying on underfloor heating, the heating system must be kept in operation for 3 days before, during and up to 7 days after laying with a surface temperature of 18 - 22 °C (see also interface coordination). Rapid temperature changes may lead to adhesion problems.

INSTALLATION

All lanes must always be laid in the same direction. First, the first strip is rolled out and adjusted to the walls. It should be noted that the linoleum shrinks in length during bonding due to the production process. For this reason, the head pieces can only be adjusted after bonding in the case of longer strips and the requirement for an exact fit to the wall, e.g. in the case of an adjustable plinth. In order not to damage the walls, we recommend gluing longer sheets to a remaining length of approx. 1.5 m and then cutting the wall connection to fit exactly. The use of a wall cradle is recommended for this purpose. Worthwhile the aforementioned hanging bay should be placed at a distance of at least be installed at a distance of at least 50 cm from the wall.

Before gluing the first web, trim the factory edge in the seam area. The edge should be trimmed by approx. 1.5 - 2.0 cm. We recommend the use of the Forbo trimmer or comparable tools. The second sheet is rolled out in the seam area with an overlap of approx. 2 cm rolled out. Since linoleum coverings expand in width during bonding due to the moisture absorption of the adhesive during production, the seam is only cut after bonding using a seam ripper, e.g. Linocut. After the rough cut, the sheets are folded back in half. To detect any slipping of the web at an early stage,

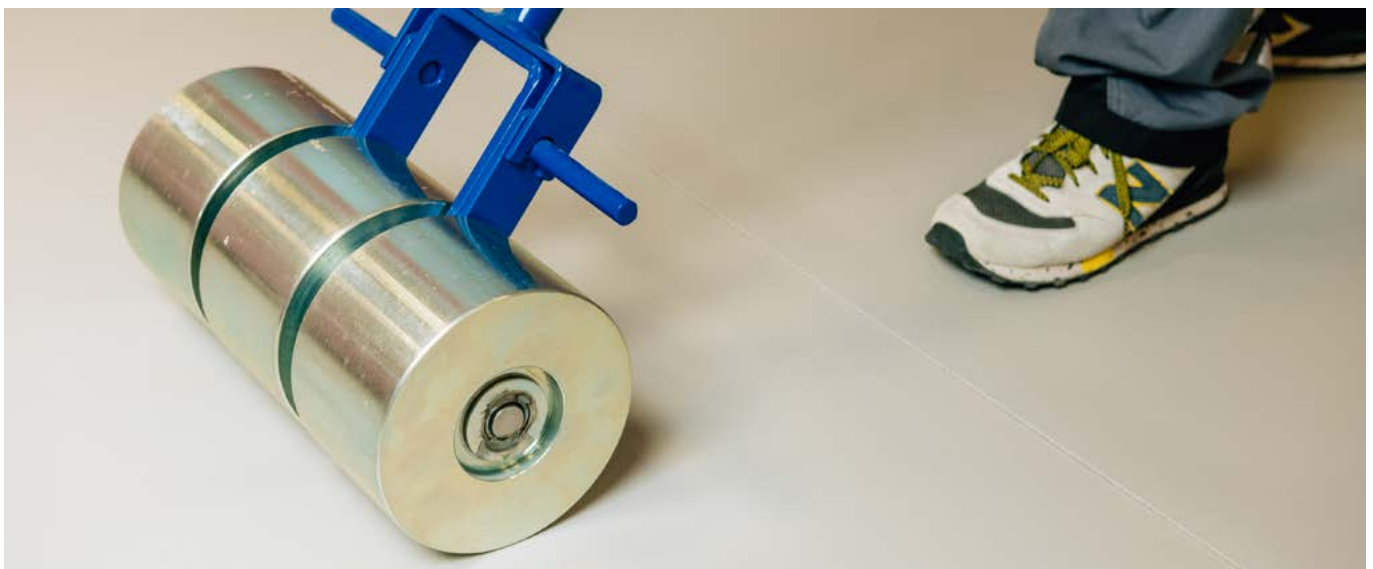


it is advisable to make a pencil mark along the seam edge. To ensure a straight adhesive edge, a line can be drawn in the folding. To ensure a straight adhesive edge, a line or adhesive tape can be applied in the lap area of the webs. In the area of the suspended bay, it is recommended to apply adhesive to the back of the covering before gluing the sheet, with adhesive on the back before gluing the sheet. The adhesive should be applied thinly with a lamb-skin roller or a smooth trowel approx. 20 cm beyond the curvature on the back of the covering.



For the installation of linoleum floors use suitable dispersion adhesives, for example 611 Eurostar Lino (Forbo Eurocol) or equivalent. After application of the adhesive (with a notched trowel TKB-B1), the sheets are pushed or rolled into the wet adhesive bed, observing the laying time into the wet adhesive bed. Any adhesive stains can be removed immediately with water (Attention: Do not use nitro thinners, products containing solvents or aggressive cleaners).

The head ends are rolled in (counter-bent). To ensure complete wetting of the reverse side, the entire coating should be rolled. To remove any air inclusions, first roll the width of the sheet and then the length, using a 50 - 70 kg multi-section roller. In the slope bay area the pavement may rise again. This area must then be rolled again within the setting time of the adhesive.



UNGROUTED SEAMS

The seam is first cut in the area of the already glued and rolled web. To do this, a Linocut (or comparable) is used to transfer the lower edge to the web above. The seam is then cut tightly, but not compressively. To avoid height differences, the seam is pressed down evenly with a seam pressure roller.

The second half is inserted and processed in the same way. Double adhesive application should be avoided in the cover area. To prevent hollow layers in the edge areas, these should be rubbed again (within the setting time of the adhesive) after bonding the entire surface.



JOINTING

If jointing of the linoleum covering is desired, the seam is cut to 0.3 mm to max. 0.5 mm air (check card thickness). Linoleum from Forbo can be milled with commercially available joint cutters and a parabolic cutter blade of max. 3.5 mm width. The joint depth should be up to the jute for 2.0 mm and 2.5 mm thick coverings and 2.5 mm for 3.2 mm and 4.0 mm thick coverings.

For proper grouting, it is essential to observe the following:

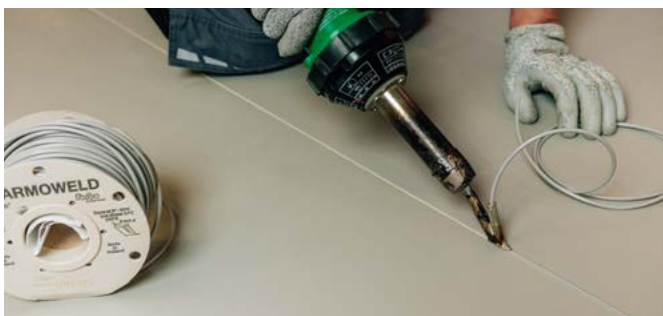
1. Jointing can be carried out after 24 hours at the earliest (setting of the adhesive).
2. Particular attention must be paid to compliance with the maximum joint width and joint depth as well as the cleanliness of the joint. In addition, the temperature of the joint should be approx. 350 °C. The speed of jointing must be adapted to this temperature. The jointing speed must be adjusted in such a way that a slight bead is formed on the pavement surface on both sides of the seam. In this case, the fusion wire must be pressed on accordingly.

3. Use a speed welding nozzle with 5 mm passage and narrow air outlet.

4. Properly repel the fusion wire while it is still warm using the Mozart repulsion knife with integrated 0.7 mm weld sled (recommended) or the quarter moon knife with weld sled. (recommended) or the quarter moon knife with weld seam slide to a protrusion of approx. 1 mm.

5. After the filler wire has cooled down completely, carefully push off the protrusion flush with the coating using the Mozart push-off knife without weld seam slide (recommended) or a sharp quarter moon knife without weld seam slide.

Grouting of embossed surfaces (e.g. Marmoleum Slate) is not recommended, since the structure of the covering does not permit flush with the covering is not possible due to the structure of the covering.



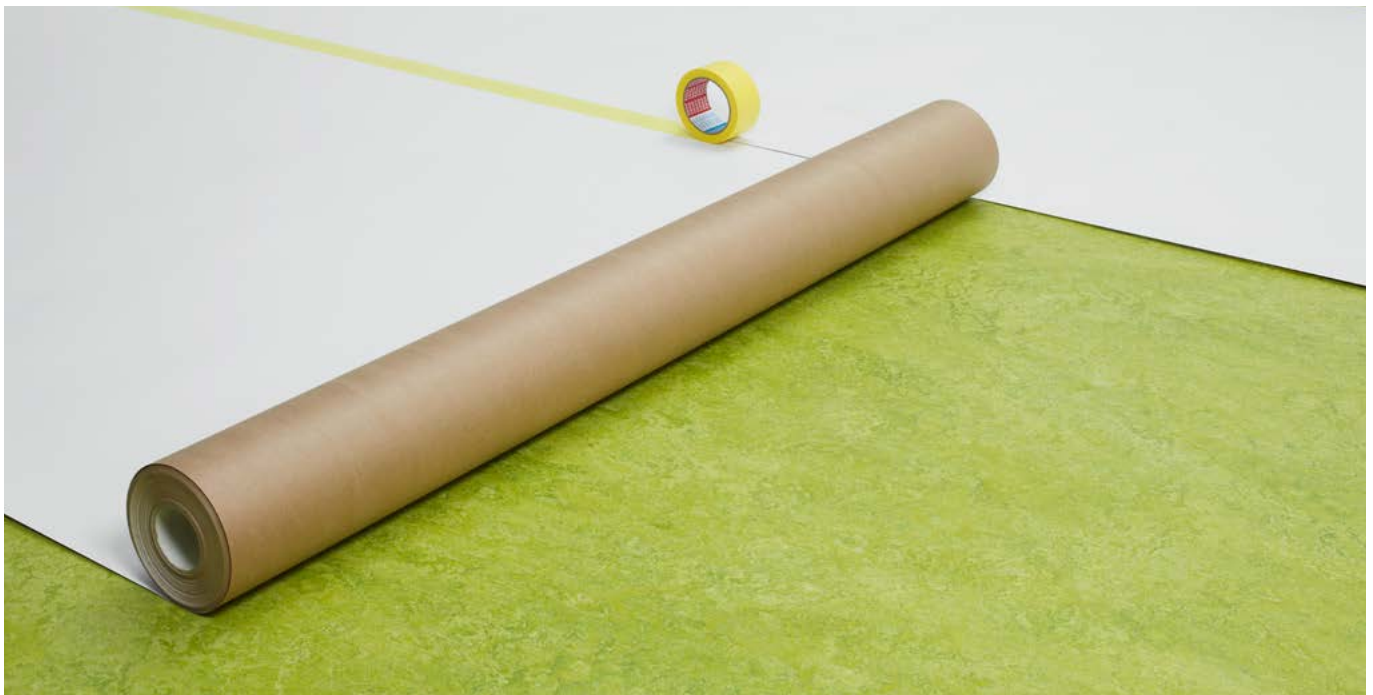
BESONDERE HINWEISE

After completion of the installation, we recommend remove coarse dirt from the floor covering by sweeping or vacuuming. After completion of the work it is important to protect the floor covering from other trades / site traffic with a suitable protective product (e.g. Forbo Protection Paper).

We recommend leaving the initial construction cleaning to a professional cleaning company that has trained personnel and the appropriate equipment.

To maintain the value of the flooring over the long term, it is important that the correct cleaning measures are applied from day one. Cleaning and care instructions for all Forbo Flooring products are available for download: www.forbo-flooring.de/reinigungsanleitung-linoleum

Cleaning and maintenance instructions should be properly handed over to the main contractor, the customer or the end user after completion of the installation and before the start of any handover.



For more information about our Linoleum special coverings please use our installation video or our website: www.forbo-flooring.de/services



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