furniture linoleum

Linoleum surfacing material
Installation instructions
Furniture Linoleum can be applied easily on all common materials such as MDF, chipboard and Plywood as well as steel or composite materials.

Furniture Linoleum has a special matt appearance to prevent unpleasant light reflections. Generally, Furniture Linoleum does not require additional treatment but an additional coat may be applied if required (e.g., a UV-resistant PU coating), using a spray gun for even application.

Colour
As Furniture Linoleum is made from natural raw materials, different production runs may show slight colour variations. This is something to bear in mind when repeating an order.

Drying room film
During the last phase of the production process, a yellowish tint – known as drying room yellowing – may form on Furniture Linoleum, especially on lighter shades. This may be visible when unpacking a roll or reusing a roll after storage. This is an entirely normal and natural phenomenon of furniture linoleum and disappears soon after exposing the product to natural light.

Handling and transportation
Furniture Linoleum is well protected by robust packaging to prevent it from being damaged during transportation. Keeping rolls vertical during transportation will also help with this. When the linoleum is cut into sheets, the individual sheets should be lifted rather than pulled. It’s also advisable to use pallets when transporting large numbers of sheets.

Storage
Store rolls vertically and sheets horizontally (flat). Do not let dirt get between sheets and avoid situations in which heavy and/or sharp objects may be placed on top of the stack. To ease installation, store the linoleum at room temperature.

Preparations for installation
Cut Furniture Linoleum approximately 1% oversized. Lay it flat and leave it (along with the adhesive and the carrier material) to acclimatise for approximately 24 hours at room temperature.

Application
Furniture Linoleum should always be applied to a carrier material, e.g. MDF, chipboard, multiples or pressed composite plates. Whenever two different types of material are stuck together, tension develops between them. To alleviate this, it is required to ‘counter balance’ the material. This also applies to linoleum when adhered to a carrier, especially loose panels. It is recommended to apply a material with the same technical properties to both sides of the carrier material.

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Where larger surfaces are concerned, the following aspects are important:
1. Choice of carrier material
2. Thickness, symmetry and strength of carrier material
3. Choice of backing used for counterbalancing
4. Good acclimatisation of materials employed.

The best results are achieved when the same material is applied to both sides of the carrier material, at the same time and in the same direction.

Furniture Linoleum is flexible and resilient, and (apart from acclimatisation) no preparations are required before installing it. To prevent any undesirable projections in its surface, ensure that the surface of the carrier material and of the reverse side of the material are clean. The carrier material should be free of any irregularities or other materials that could interfere with the flat, smooth finish.

Adhesive
The adhesive used largely depends on the manner of installation and the intended use of the finished product. The carrier material also plays a role. General guidelines are given in the table below.
The following is the recommended method for applying Furniture Linoleum in a curved form:
1. Apply contact adhesive to the carrier material.
2. When the adhesive on the carrier material is half set, apply adhesive to the linoleum.
3. When the adhesive on the linoleum is half set, press the linoleum onto the carrier material. Start pressing at the flat end of the surface and gradually work towards the curve.
4. Rub your hand over the surface to expel any air bubbles. Work a small section at a time to ensure that the linoleum is applied properly before sticking the next section.

Cover Furniture Linoleum with tape if the edges are to be coated. Remove the tape immediately after varnishing. If you sand the edges, avoid damaging the linoleum surface. Immediately remove any residue of adhesive with water. After the adhesive has dried, remove any hard residues with white spirit, then immediately remove any residue of white spirit with water.

**Industrial installation**

No special equipment is required to install Furniture Linoleum. Machinery and tools suitable to install HPL may also be used for Furniture Linoleum.

When employing a press or stacking press, ensure that the surface of the press and of the linoleum are clean. Furniture Linoleum can be pressed cold or warm (maximum 70° C). The pressure will vary between 75 and 150 bars and the pressing time from 2 to 15 minutes, depending on the adhesive used.

To a certain extent, Furniture Linoleum can be stuck to a surface which is curved in more than one direction (e.g. the seat of a chair). Press the linoleum in a mould together with plywood and adhesive into the desired shape.

**NB:** It is always advisable to carry out trials prior to commencing actual production. After the Furniture Linoleum has been stuck to the carrier material, machine it to size. Techniques such as sawing, milling, drilling, cutting and planing can be employed. Always use sharp tools.
HYGIENIC AND CLEAN

Finishing off the edges

Any type of finish is possible with Furniture Linoleum. Stick the edges with an adhesive that is transparent when dry, and immediately remove any residue. Always protect the Furniture Linoleum surface.

The easiest way to finish off edges is to cut Furniture Linoleum off straight and to mill and varnish the edges of the carrier material (figure A). Bevel the edges a little. It is also possible to finish edges with a strip of aluminium, wood or plastic, for example. (figures B and C). Figure D shows Furniture Linoleum applied to edges; to achieve a good result, however, this technique requires a certain degree of both experimentation and expertise.

As mentioned, it is possible to round off the edges with Furniture Linoleum (figure E). Always provide an additional 3-5 cm of linoleum at the bottom to prevent it from coming loose due to bending stress.

This design solution, namely the combination of tapered surface and half-round wooden strip, illustrates the many possibilities offered by Furniture Linoleum (figure F).

Industrial rounding

In general, machinery used to bend HPL can also be used to bend Furniture Linoleum. The maximum temperature employed may not exceed 70°C.

Cleaning after application

- Remove any residual adhesive, coating and/or stains caused by fingerprints with a clean, moist cloth and, if necessary, a pH-neutral cleansing agent (e.g. Forbo Cleaner).
- Use white spirit to remove dried adhesive, then immediately remove the white spirit with a clean dry cloth.

Regular cleaning

- Clean with a damp cloth, optional a pH-neutral detergent can be used.
- Remove stains immediately after spillage.

Occasional maintenance

- Apply a 5 % solution of a pH-neutral detergent in water.
- Allow soaking for 10 minutes.
- Scrub the surface gently with a soft scrub brush.
- Pick-up dirty water.
- Rinse with clean water and allow surface to dry.
- Apply a thin maintenance film of undiluted Forbo Monel.
- Buff vigorously with a clean (new) cotton pad.

Preventive measures and stain removal

- Sharp items may cause scratches, use soft protection in case of doubt.
- Remove stains immediately after spillage (such as ink, coffee, tea, red wine).
- Prevent stubborn stains from forming; use coasters under flowerpots, vases, cups etc.
- Desk Top: for stubborn stains such as ink and pencil, use a clean cloth and neutral cleaner.

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Technical specifications

- Total thickness (EN-ISO 24346) 2.0 mm
- Roll width (EN-ISO 24341) ≤ 1.83 m
- Roll length (EN-ISO 24341) ≤ 30 m
- Weight (EN-ISO 23997) 2.1 kg/m²
- Indentation-residual (EN-ISO 24341-1) < 0.20 mm
- Light fastness (EN-ISO 105-B02 Method 3: blue scale) minimum 6
- Gloss level (ISO 2813) < 5
- Flexibility (EN-ISO 24344 ø 50 mm) 5
- Resistance to chemicals (EN-ISO 26987) Resistant to diluted acids, oils, fats and to the conventional solvents. Not resistant to prolonged exposure to alkalis.
- Heat resistance 70 º C
- Body voltage (EN 1815) ≤ 2 kV
- Life Cycle Assessment LCA is the foundation for securing the lowest environmental impact.

All Forbo Flooring Systems’ sales organizations worldwide have a certified Quality Management System in accordance with ISO 9001.

All Forbo Flooring Systems’ manufacturing operations have a certified Environmental Management System in accordance with ISO 14001.

The Life Cycle Assessment (LCA) of Forbo Flooring Systems’ products is documented in individual Environmental Product Declarations (EPD’s) which can be found on all of our websites.