

fatra

fatrafloor[®]

**INSTALLATION
MANUAL**

WALL COVERING MODUL



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1. GENERAL SECTION

MODUL heterogeneous PVC wall covering is manufactured in rolls with a width of 2000 mm. The wall covering meets hygiene standards ensuring the cleanliness of the indoor environment. The surface of the covering is easy to clean, highly durable and reduces maintenance costs. It is used in buildings with heavy traffic, where high demands are placed on hygiene and protection against mechanical damage to walls.

2. TRANSPORT, STORAGE, ACCLIMATISATION CONDITIONS

2.1 TRANSPORT

Pallets with material must be transported in a vehicle equipped with a tarpaulin (i.e. a covered lorry or semi-trailer) so that the material is not directly exposed to climatic influences (rain, snow, direct sunlight). Rolls of wall covering must be packed on pallets so that the material is not deformed during transport or subsequent handling during unloading.

2.2 STORAGE

Store wall coverings at a temperature of (15-30) °C in dry, shaded and dust-free indoor areas of buildings.

- The transport packaging of wall covering rolls in a vertical/horizontal position on wooden pallets is not intended for storage. After delivery, the stretch film and binding straps must be removed from the transport packaging.
- Store 2 m wide wall covering rolls safely:
 - in an upright position on pallets or in metal cages,
 - in a horizontal position interleaved with Mirelon sheets, max. in five layers, stored on pallets (with a full loading area) of the same width with the loading area supported by a cardboard interlayer. The pallet must not be shorter than the roll.
- When handling all types of wall coverings, take care not to damage the material. Incorrect transport, storage and/or handling may cause damage to the covering and result in visual or aesthetic defects, which are not covered by the warranty.

Do not stack pallet units!



DO NOT STACK!

It is very important to follow the transport and storage instructions.

2.3 ACCLIMATISATION

Acclimatisation (adjusting the temperature to the indoor environment) of the MODUL product is important at the installation site. The optimal indoor temperature conditions for acclimatising MODUL wall covering are (18-22) °C for 24 hours and relative humidity (40-60) % RH. This means that the product and the substrate for application must have a minimum temperature of 18 °C, as must the air temperature in the room during application and the subsequent technological pause (usually 24-48 hours for the adhesive to cure, according to the manufacturer's technical data sheet). Always place the rolls vertically with protective plastic caps at the end of the roll around the perimeter of the room so that they are at least 500 mm from the perimeter walls and there is a minimum spacing of 200 mm between the rolls. This is due to natural air flow and subsequent acclimatisation. Avoid close contact with heat sources (e.g. heaters, radiators) and sunlight by using suitable shading. In extreme temperatures, the acclimatisation of MODUL wall coverings is extended proportionally, usually by 1 to 2 days.

After acclimatisation, unroll the roll on a prepared area on the ground (substrate) that is clean, flat, free of chemicals and debris (preferably use a mat or foil). The individual roll is then unrolled with the face side facing up and left to rest for at least 48 hours on the substrate at a minimum temperature of 18 °C (to eliminate internal tension in the substrate). Slight curling is permissible. Rolls and cut pieces must not be stacked on top of each other (acclimatisation) and must be left to lie freely so that nothing prevents them from settling around the perimeter (perimeter expansion on the floor approx. 100 mm).

Continuously check the temperature of the MODUL wall covering and ensure that the temperature of the covering is at least 18 °C before application, during application and during the subsequent technological pause. It is also necessary to ensure a minimum air temperature of 18 °C in the application room. Do not expose the MODUL covering to temperature fluctuations even after completion (climatic changes), as sudden changes may cause deformation.

3. REQUIREMENTS FOR THE FATRA/ARDEX SYSTEM SUBSTRATE

The wall (hereinafter referred to as the substrate) for the installation of MODUL covering must be flat (permissible deviations of the wall surface from the plane are 2 mm per 2 m length), smooth, compact, cohesive, clean, free of any contamination that could weaken the adhesive strength, stable and dry (maximum values: cement substrate 2% CM and anhydrite 0.5% CM). The minimum compressive strength of the wall surface is 1.5 MPa. All damage must be repaired (cracks, scratches, etc.). The surface quality requirement in this case is Q3 to Q4 (surface quality grades) according to EN 13914-2.

If necessary, Ardex R1 or Ardex R4 Rapid cement repair compound must be used to smooth the substrate. For gypsum substrates, Ardex P51 primer must be used to prime the substrate before applying the appropriate Ardex repair compound. For other types of substrates (detailed in the Ardex product data sheet), priming is usually not necessary.

The suitability of the wall for the installation of MODUL covering must be assessed by the application company with an authorised person, including approval by the investor (client, end user), and everything must be recorded in the relevant report based on the assessment. Wall coverings must not be glued in rooms without functional waterproofing and on floors in wet areas, i.e. in showers/bathrooms.

4. APPLICATION

This technical information in the Installation Instructions has been prepared for the needs of professionally trained technicians, application companies and tradespeople with flooring qualifications, based on the knowledge, experience and professional practice of the manufacturer of construction chemicals (Ardex), construction experts, implementation companies and the manufacturer Fatra, a.s.

Ardex AF 155 adhesive is used for bonding MODUL wall coverings in dry areas. Before bonding, the substrate must be primed with Ardex P51, which is diluted with water in a ratio of 1:3. Once the primer has dried sufficiently to form a clear, colourless, thin film, bonding can begin. Ardex AF 155 adhesive is applied with a TKB A2 notched trowel and then rolled with a nylon roller (L'Outil Parfait nylon roller).

Ardex AF 181W adhesive is used for bonding MODUL wall coverings in damp areas. Here, you must apply a thin layer of Ardex PU30 primer before bonding, if necessary. After a minimum drying time of approx. 2 hours, but no more than 24 hours, direct bonding with Ardex AF 181W adhesive must take place. Ardex AF 181W adhesive is applied with a TKB A2 notched trowel or rolled on with a nylon roller (L'Outil Parfait nylon roller).

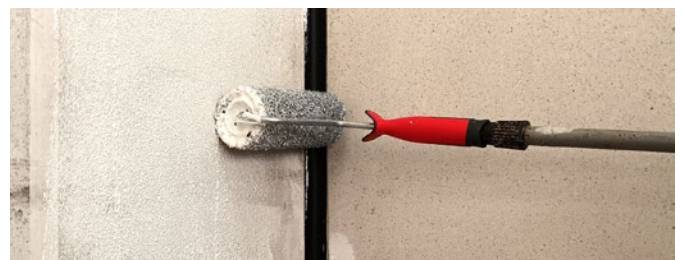
Detailed information on individual products is provided in the Ardex manufacturer's technical data sheets.

4.1 APPLICATION CONDITIONS

Application begins after completion of all finishing work, including painting (except for the final coat of paint on the walls), completion of plumbing work, drying of plaster and sealants on walls, floors and ceilings, installation in door frames and finishing of walls where non-adjustable door frames are located, pressure testing and leak testing of sanitary, heating and electrical installations. It is important to check the quantity and whether the colour and pattern of the MODUL covering matches the order. Also check that the goods are not damaged. Check the batch numbers on the roll labels of the covering to avoid differences in shades in one room.

Unless otherwise agreed, one production batch of MODUL wall covering must be installed. According to the General Terms and Conditions, we may request a roll label from the customer in the event of a complaint, but there is no obligation to keep all labels. The manufacturer, Fatra a.s., bears no responsibility for mechanical damage caused by improper handling during transport, storage, climatic changes, and inappropriate application. Products that show visible defects and damage must not be used and must be immediately reported to the distributor (your dealer). MODUL rolls can be stored vertically or horizontally in accordance with the manufacturer's instructions. Before installation, wall covering must be acclimatised at the installation site for at least 24 hours and unrolled for 48 hours to allow it to settle. The air temperature in the room where MODUL is installed must be (18-22) °C, and the investor is obliged to ensure this temperature even after completion (adhesive curing according to the manufacturer's technical data sheet). MODUL can be installed vertically or horizontally, as agreed with the customer (investor). In individual cases where the layout of the rooms is asymmetrical or it is necessary to achieve the desired visual effect, the direction in which the MODUL wall covering strips will be installed must be agreed with the customer (investor).

MODUL must be glued to the wall over its entire surface. To install MODUL wall covering, use adhesives specified in the Installation Instructions and follow the instructions (manufacturer's technical data sheet). Immediately after gluing, the MODUL covering strips must be carefully pressed onto the substrate, e.g. with a silicone pressure roller (Janser) or a cork trowel. It must be ensured that the following climatic conditions prevail in the rooms where the covering will be installed: air temperature: (18-22) °C, wall temperature (18-22) °C and relative air humidity (40-60) % RH throughout the application and until the adhesive has cured (according to the adhesive manufacturer's technical data sheet).



Applying adhesive with a roller



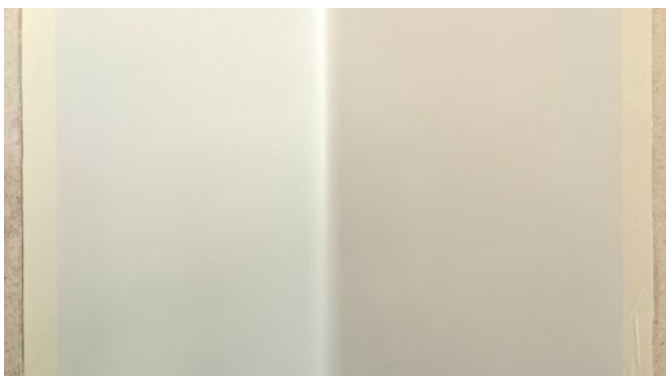
Adhesive applied with a roller on the substrate



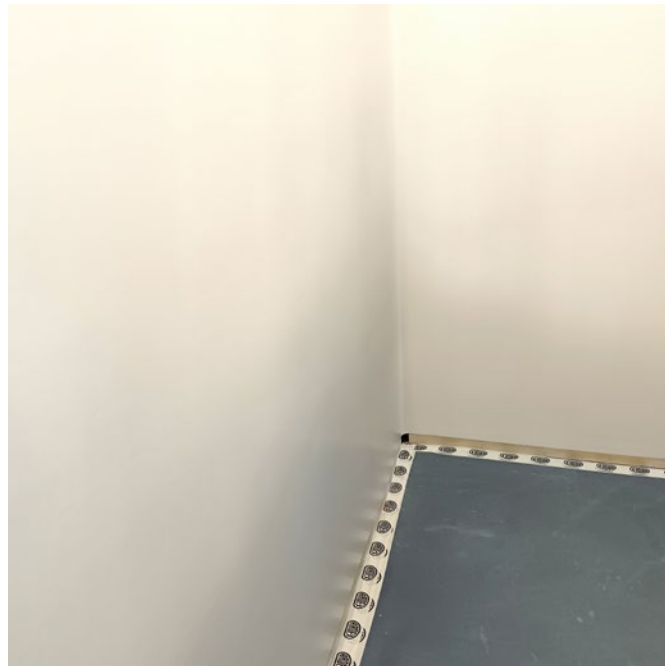
Bonding MODUL covering to the wall from the corner



Air displacement and smoothing



MODUL covering glued to the corner of the wall



Application of MODUL covering before completion

4.1.1 HOT WELDING

The bonded surface must be left without operational load for at least 24 hours before welding. After this time, the wall covering can be welded. Before welding, a U- or V-shaped joint must be milled by machine or by hand. The joint is milled to a depth of max. 2/3 of the strip thickness.

Milling is necessary for:

- a) removing adhered adhesive and dirt from the joint,
- b) correct placement of the welding cord,
- c) ensuring the same joint width.

The welding cord is unwound to a length approximately 50 cm shorter than the length of the wall covering strips, and both strips are welded together. The finished weld is then connected in the opposite direction. A prerequisite for a high-quality weld is careful preparation of the joint and the use of welding equipment with continuous temperature control and an adapter for a quick-welding nozzle (ultra-nozzle for wall covering - Janser) of the appropriate shape. When joining wall coverings with a welding cord, the gloss around the weld changes due to thermal stress. The choice of welding nozzle affects the width of this shiny mark. Before starting welding, it is necessary to agree on the final appearance of the weld on a sample of the wall covering.

After welding, allow the cord to cool to room temperature and cut it into a quarter-moon shape in two steps. In the first step, use a sled for welded joints or a plane for welded joints, and in the second step, use a knife without a sled to cut to the level of the floor covering. A defective weld is repaired by cutting out the cord from the defective area and then welding a new weld with an overlap of about 5 cm on both sides. The approximate consumption of welding cord when welding squares is about 3.5 running metres per square metre of wall area.

The welding speed depends on external conditions, the set welding temperature and the skill of the worker. Welding at too high temperature causes the area around the cord to turn brown or black. An insufficiently welded seam is created when the welding cord is hot-pressed without proper fusion; it may tear out of the joint during trimming. Both of these extremes are unacceptable.

4.1.2 COLD WELDING

This method produces a high-quality aesthetic finish and an almost invisible joint that is also waterproof. Cold welding is suitable for joining two PVC strips and also for wall coverings. Wall coverings are welded after applying paper tape and making a double cut, i.e. you first fold the PVC covering, cut it precisely and then weld it. The tube has an integrated metal tip that allows the welding agent (liquid) to penetrate deep into the joint, ensuring optimal welding. Follow the instructions in the adhesive manufacturer's technical data sheet.

If it is necessary to assess the work under artificial lighting, halogen light must not be used under any circumstances. Halogen light shines in a specific direction and its beam varies greatly from the centre outwards, giving a false impression.

It is therefore recommended to use lamps with the following parameters:

- > The lamp should emit diffused light.
- > Approximately 5000 degrees Kelvin and approximately (1100-2000) lux per area, if the lamp is placed at a distance from the evaluation area as specified in this brochure.

The temperature of light is given in degrees Kelvin and is usually divided into three categories:

- > less than 3300 degrees Kelvin = warm white
- > 3300-5000 degrees Kelvin = cool white
- > more than 5000 degrees Kelvin = daylight

5. EVALUATION OF THE APPEARANCE OF WALL COVERINGS

5.1 EVALUATION IN DAYLIGHT

The surface should preferably be evaluated in daylight.

- > Natural entrance to the room, looking from the entrance.
- > We look at the surface at a height of approximately 1.7 m.
- > We look at the surface from a distance of (1.0-1.5) m directly and then at an angle of 45°.
- > We look at the surface onto which variable light falls (from large window panes) from a distance of (1.0-1.5) m directly and at an angle of 45°.

5.2 EVALUATION UNDER ARTIFICIAL LIGHTING

If, in exceptional cases, the assessment is carried out under artificial lighting, a 120 W, 6500 Kelvin daylight lamp is used. The lamp is either placed or hung in the middle of the room so that a value of (1100-1200) lux is measured on the surface. The lamp must not be placed close to the surface being evaluated and must not be located near the person performing the evaluation.

- > For larger rooms, one lamp is placed for every approx. 20 m².
- > The same assessment criteria apply as for daylight.

5.2.1 DEFINITION OF ARTIFICIAL LIGHTING

The assessment of work may vary considerably depending on the light source used.

6. USE AND MAINTENANCE

After application, the MODUL wall covering must be thoroughly cleaned, prepared for use and handed over to the customer (investor) in accordance with the instructions of the manufacturer, Dr. Schutz Group. It is also important to maintain the wall covering with products designed for this purpose in terms of functionality, aesthetics and hygiene from the manufacturer, Dr. Schutz Group.

The wall covering is intended for interior use. Conditions for use of the wall covering: air temperature (15-30) °C, relative air humidity (40-60) % RH.

6.1 SUMMARY, INSTALLATION INSTRUCTIONS, PROPER USE AND CARE

- > Wall coverings are intended for application by skilled, professional and trained persons with a trade licence for flooring and construction.
- > Wall coverings are intended for interior use only and must not be applied in rooms that are not sufficiently insulated against moisture. If the investor or user is unsure about the condition of the insulation, they should have it checked by a specialist company.
- > Follow the prescribed values of the applicable standards and instructions specified in the Installation Instructions of the manufacturer Fatra, a.s.
- > Wall coverings cannot be applied to old or other PVC coverings.
- > Do not apply wall coverings in entrance halls and areas where climatic conditions are not controlled.
- > When gluing wall coverings, wall and ceiling heating must be turned off.
- > Allow the wall covering to acclimatise for at least 24 hours at the application site in a vertical position according to the instructions before installation.
- > Leave the wall covering to rest in an unfolded state for at least 48 hours according to the instructions.
- > Temperature conditions of the substrate and acclimatisation, resting, application and subsequent adhesive curing times: min. (18-22) °C.
- > Conditions of use: air temperature (15-30) °C, relative air humidity (40-60) % RH.
- > Do not expose the wall covering to temperature fluctuations.
- > After application, basic cleaning must be carried out according to the manufacturer's instructions (Dr. Schutz Group).
- > Do not expose the glued wall covering to water (for hours) or to an environment with relative humidity exceeding 60% RH for long period of time.
- > Sunlight in south-facing rooms with glass windows can cause the temperature of the wall covering to rise above +28 °C. It is necessary to protect the wall with suitable shading technology even during the application of the substrate and final installation (window film, external blinds, awnings, etc.).

- > Direct ultraviolet (UV) sunlight causes gradual degradation of the surface and irreversible changes to the wall covering.
- > Prevent contact between hot and smouldering objects and the wall covering, as they leave irreversible changes in colour and structure.
- > The wall and ceiling heating system must be set so that the substrate temperature does not exceed +28 °C during normal use of the wall covering.
- > We recommend installing temperature seals indicating the recorded temperature range (37-46) °C.
- > Rubber products (mostly dark and coloured rubber, instrument covers, etc.) cause irreversible colour changes in the top layer when in prolonged contact with wall coverings, resulting in yellowing, browning or even blackening of the wall covering surface at the point of contact with the rubber product. Residues of asphalt strips in the substrate and similar substances can also cause degradation in the substrate by migrating to the surface.
- > Do not stress the wall covering or wall in any way that is contrary to the Installation Instructions and may cause irreversible changes. Mechanical damage, improper handling and use, including improper maintenance, are not covered by the warranty.
- > The use of steam mops and steam cleaners is prohibited!
- > Ensure that the acceptance and handover protocol is completed correctly (downloadable at fatrafloor.com).

7. COMPLAINTS

Fatra, a.s. Napajedla, as the manufacturer of Fatrafloor flooring, handles complaints regarding defects in quality, quantity and workmanship within the scope of liability for defects under the relevant purchase agreement. The warranty does not cover defects caused by improper handling, use, transport and/or improper storage and/or improper application of the PN 5427/2024 laying instructions. The buyer is obliged to notify the seller of any defects in the goods without delay and to provide credible evidence of such defects. We recommend that contractors and end customers keep records of the handover and acceptance of construction readiness, see the sample handover protocol for the substrate, preparatory work and finished floor/wall covering at fatrafloor.com.

If the surface of the PUR protective layer is scratched due to movable furniture, where the contact surfaces with the wall covering are not protected by suitable protective means, no claim can be made for this scratching.

8. CHEMICAL RESISTANCE

EVALUATION TABLE	
Index	Effect on test sample
0	Not noticeable
1	Very slightly noticeable
2	Slightly noticeable
3	Noticeable
4	Strongly noticeable

The wall covering is highly resistant to weak and diluted acids, alkalis and soaps. Petroleum products and strong acids do not cause damage if the relevant spillage is rinsed off immediately. Ketones, chlorinated solvents and other solvents must not come into contact with the wall covering. However, if this happens, the damage can be minimised by rinsing immediately with water (see cleaning instructions).

Some chemicals contain very strong dyes that can stain wall coverings even after brief contact. Rubber products (mostly dark and coloured rubber – rubber wheels, equipment protectors, etc.) can cause irreversible colour changes to the wear layer when in contact with wall coverings, resulting in yellowing, browning or even blackening of the wall covering surface at the point of contact with the rubber product. Where these types of materials are used, we recommend dark-coloured wall coverings to minimise the risk of staining. The table below provide an overview of the general chemical resistance of wall coverings.

Applied agent	Effect on the test sample	Cleaning method	Effect after cleaning
80% Acetic acid	0	White cotton + Hot water	0
37% Hydrochloric acid	0	White cotton + Hot water	0
38% Phosphoric acid	0	White cotton + Hot water	0
30% Nitric acid	0	White cotton + Hot water	0
30% Sulphuric acid	0	White cotton + Hot water	0
> 98% Acetone	0	White cotton + Hot water	0
> 98% Ethanol	0	White cotton + Hot water	0
> 98% Isopropanol	0	White cotton + Hot water	0
37% Formaldehyde	0	White cotton + Hot water	0
25% Ammonia	0	White cotton + Hot water	0
50% Sodium hydroxide	0	White cotton + Hot water	0
Eosin	4	White cotton + Hot water + P 240 sandpaper	2 - moderate surface damage
Iodine with 1% alcohol	3	White cotton + Hot water + P 240 sandpaper	2 - moderate surface damage
Iodised povidon (Betadine in a yellow bottle)	2	White cotton + Hot water + P 240 sandpaper	1 - slight surface contamination
PVP-AI (Betadine in orange bottle)	2	White cotton + Hot water + P 240 sandpaper	2 - moderate surface contamination
PVP-Iodine Scrub (Betadine in a blue bottle)	1	White cotton + Hot water + P 240 sandpaper	1 - mild surface damage
Chlorhexidine	0	White cotton + Hot water	0
Chlorhexidin-alcohol	0	White cotton + Hot water	0
30% Hydrogen peroxide	0	White cotton + Hot water	0
15% Peracetic acid	0	White cotton + Hot water	0
30% Ammonia for cleaning floors	0	White cotton + Hot water	0
Sodium hypochlorite (bleach) with 0.5% active chlorine	1	White cotton + Hot water + P 240 sandpaper	0

The MODUL laying instructions have been compiled by European manufacturers of construction chemicals ARDEX, maintenance and treatment chemicals, Dr. Schutz Group and Fatra, a.s., a major global plastics processor.

Subject to change until the next update. For consultations and enquiries, please contact the technical support of the manufacturers listed.



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