Installation Instructions
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General information

Application

These installation notes describe how to use and install JACKOBOARD® Plano Premium construction boards as substructures for tiles, paint, wallpaper and plaster for indoor installation. Notes are included for planning and executing normal applications in residential, commercial and industrial construction.

The recommendations apply solely to applications in rooms with normal temperatures. The manufacturer should always be consulted before using the construction boards for special applications, e.g. swimming baths, cold storage areas, etc.

Substrate requirements

The substrate must be able to support loads. Dirt and mortar residue must be removed prior to installing JACKOBOARD® Plano Premium construction boards. If necessary, the surface should be treated with a special primer. Newly laid substrates must be completely dry before installing JACKOBOARD® Plano Premium construction boards.

General notes on storage and use

JACKOBOARD® Plano Premium construction boards should always be stored flat, irrespective of the thickness. They must be protected against direct sunlight and moisture. Any use of agents containing solvents must be avoided.

Application

Use on an even and adhesive substrate

JACKOBOARD® Plano Premium boards can be laid on even and completely adhesive substrates by applying a flexible tile adhesive (C2 S1) to the entire surface. They do not need to be dowelled as well. The substrate must be even and flush. No separating layers (e.g. paint residue) must be allowed to hinder the adhesive bond with the substrate e.g. plaster. Apply the adhesive to the wall with a notched trowel. Then fully bed the construction boards, which may have to be cut to length, into the adhesive by gently moving them back and forth.

Depending on the requisite thickness of the adhesive layer, which may differ due to slight dimensional tolerances in the substrate, it may be necessary to adjust the construction boards to ensure that the resulting base is even and flush and suitable for finishing operations.
Use on an even and non-adhesive substrate

If the permanent bonding of the JACKOBOARD® Plano Premium construction boards to the substrate cannot be guaranteed due to unsuitable surfaces, separating layers, etc., they must be dowelled in addition to adhesive being applied over the entire surface. The bonding and reinforcement procedures for the construction board are the same as described for application on an adhesive substrate. In addition to reinforcing the board joints once the adhesive is completely dry, the construction boards must also be dowelled. Metal nail plugs (e.g. JACKOBOARD® metal plugs) should be used. Five plugs are required for each m² to ensure permanent fastening. In the case of a construction board measuring 2.6 m in length, the plugs should be set at the four corner points, and the two centre points on the longer edge. In addition, plugs must be set along the long axis at a distance of 60–65 cm from the top and bottom ends of the construction board. If 50 mm plugs are used, they must be inserted to a depth of at least 35 mm into the load-bearing substrate. The minimum insertion depth for 80 mm plugs is 50 mm.

Use on an uneven substrate

If full-surface bonding of the JACKOBOARD® Plano Premium construction boards is not possible due to unevenness in the substrate, they must be fastened at appropriate points. Construction boards must be at least 20 mm thick for this purpose. Use dots of a flexible tile adhesive over the construction board, the thickness of which should be selected according to the task in hand. The number and positioning of the dabs of mortar are the same as for nail plugs, e.g. at least 5 dabs per m².

We recommend the use of polymer-modified quick-acting adhesives to speed up the work.

Apply the construction board to the wall by gently tapping it with a rubber hammer and an underlay (e.g. a wooden board), taking care to ensure that the boards are adjusted to create an even and flush base. The size of the dabs of adhesive should be such that, after tapping with the rubber hammer, the space between the construction board and the substrate is no more than 10 mm if possible. If the spaces are larger, they should be filled with left-over pieces of construction board. Once the dabs of mortar are completely dry, the construction boards can be dowelled. Metal nail plugs (e.g. JACKOBOARD® metal plugs) should be used for this. The plugs should be inserted exactly through the dabs of mortar into the wall. It is therefore helpful to mark the points on the construction board where the dabs of adhesive will subsequently be applied. If 50 mm plugs are used, they must be inserted to a depth of at least 35 mm into the load-bearing substrate. The minimum insertion depth for 80 mm plugs is 50 mm.
Application on stud frames

An even and flush-mounted timber stud frames can be mounted on an existing load-bearing substrate, on which the JACKOBORD® Plano Premium boards can then be installed. The distance between the axes of the frame structure should not be more than 0.6 m. The JACKOBORD® Plano Premium boards used to cover the stud frame should be at least 20 mm thick. Construction boards with a thickness of 10 mm or more can be used if the frame spacing is reduced to 0.3 m.

Use standard bugle headed drywall screws (5 per m²) and large diameter washers (e.g. JACKOBORD 35 mm fixing washers) to fasten the board to the timber structure. The washers must be sunk to lie flush with the board surface.

When mounting JACKOBORD® Plano Premium construction boards on a stud frame, e.g. to partition a room, we recommend working with a standard metal stud frame, with spacing between the upright beams of between 60 and 65 cm, depending on the length of the construction board. Screw the construction boards (minimum thickness of 20 mm depending on the task in hand) to the metal stud frame parallel to the floor or ceiling using standard bugle headed drywall screws (5 per m²) and large diameter washers (e.g. JACKOBORD 35 mm fixing washers). Construction boards with a thickness of 10 mm or more can be used if the frame spacing is halved to approx. 30 cm.

When mounting heavy objects, such as washbasin or toilets, take care to ensure that the screws are not fastened to the foam core of the insulation board but penetrate through to the wall at the back or to the stud frame. This must also be taken into account when mounting the construction boards on timber or metal stud frames or when spot gluing them. If necessary, the stud frame must be adapted accordingly. Lighter objects can be fastened with the aid of cavity-wall or expanding anchors.
Free-standing walls

When using JACKOBOARD® Plano Premium construction boards to build free-standing partition walls, the boards must be at least 50 mm thick. Wall depths of up to 1200 mm can be realised with no need to additionally reinforce the cantilevered corner. Equally, two construction boards measuring 600 mm in width can be bonded together to create the overall depth of 1200 mm. The method for fastening the free-standing construction boards to the wall and floor is determined by the subsequent load to which they will be subjected (private or commercial use).

Commercial use

JACKOBOARD® Plano Premium boards in the wall and floor area of the load-bearing substrate.

At least one side of the construction board should be tiled following installation to ensure sufficient stability. For aesthetic reasons, and to ensure sufficient point load, the other side should be plastered.

Private use

Three alternative methods for fastening the free-standing wall to the floor and wall are available.

1. Full-surface bonding using a suitable adhesive, depending on the respective substrate.
2. Use of mounting aids (standard plug connection systems) and the additional use of adhesive in the wall and floor area.
3. Fastening with the use of U profiles in the wall and floor area of the load-bearing substrate.

Note: The substrates for variants 1 and 2 must be capable of supporting loads and must be cleaned of all dirt and mortar residue prior to commencing application.
Use under a pitched roof

Apply BOARD-FIX® in wavy lines to the adjacent wall and to the main battens.

BOARD-FIX® has the function of a sealant on the adjacent wall, ensuring airtightness.

When JACKOBOARD® Plano Premium construction boards are laid horizontally, they must be supported by at least 3 main battens.

Affix the construction boards to the battens with light pressure at the same time as pressing them against the adjacent wall.
Secure the corners of the construction boards with screws and large diameter washers (e.g. JACKOBORD 35mm diameter washers).

You can optionally fix a large diameter washer over a joint between two construction boards.

Screws must only be used in a joint or along the taper edge.

When the construction boards are installed horizontally, adhesive must be applied to the transverse joint.
Finishing the butt joints for painting

Using a spirit level and a pencil, mark the filter layer on the upper and lower insulation board to a height of 50 mm along the whole length of the transverse butt joint.

Then use a pressure roller to compress the XPS core by the thickness of the butt joint tape.

We recommend two coats of filler. The butt joints should be filled with standard gypsum joint filler. The first coat of filler should be applied perpendicularly to the joint, so that there is a strong bond along the whole butt joint. Now apply the butt joint tape along the entire length and lightly press it on with a scraper.

The second filler coat should be applied widely along the entire butt joint.

If a higher quality level is required, further coats of filler must be applied, and the instructions from the manufacturer of the filler must be followed.
Finishing the butt joints for tiling

When tiles are to be used, all butt joints must be covered with glass fibre tape or butt joint tape and filled with tile adhesive.

Special sealing tape (e.g. JACKOBOARD® sealing tape) should be used to reinforce the board joints in wet areas. Instead of sealing tape, the joints can also be sealed with BOARD-FIX® adhesive and sealing agent. To do so, apply BOARD-FIX® in strings to one side of a board and press it firmly against the second board to enable excess material to be smoothed flat. Make sure the adhesive is applied without any gaps to prevent imperfections, especially where joints may cross, e.g. transitions from floor to wall. Then use tile adhesive to cover all joints with JACKOBOARD® glass fibre tape.
General notes on using tiles

Rooms or areas that are exposed to moisture (e.g. bathrooms, showers) must be protected against moisture penetration. Rooms or components that are exposed to moisture are generally covered or clad with tiles and boards. These covers are moisture resistant and water repellent. Since, however, the joints cannot be made permanently impenetrable to water, additional sealing is required.

In areas subject to high levels or moisture, e.g. showers or wetrooms, or where there may be standing water, then a suitable waterproofing system must be used over the joints between the boards before tiling or finishing.

Care must be taken to ensure that the joints between the wall and floor covering and the corner joints of the wall covering are expansion joints. Any standard thin-bed mortar (e.g. cement-based, polymer-modified adhesives) can be used as a tile adhesive.

General notes on applying plaster

When cement plaster is used, scrim must generally first be applied to the whole surface.

The guidelines for the plaster should be observed.

General notes on painting the surface

Painting:
To avoid the paint drying out too quickly (chalking), a deep primer must first be applied or a non-woven scrim used. To achieve an even colouring, it is advisable to then apply an undercoat of white paint.

Wallpapers:
When using wallpaper, a wallpaper primer or a non-woven scrim must first be applied.
Here, too, we advise applying an undercoat of white paint before wallpapering.

Joint filing and skimming techniques:
Generally the same grade or a harder grade of filler is used in the butt joint than for the full-surface skim coating, to ensure flexibility.

For optimum adhesion, fillers (dispersion or gypsum filler, 2–3 mm thick) require priming with a bonding primer.
Alternatively, you can use a non-woven scrim for filler work.
If the skim coating is < 2 mm, a scrim must be used.

The instructions from the manufacturers of the wallpapers, paints and fillers must be followed during your work.
Please note
The information in this leaflet is based on our experience and current materials specification. It represents no specific guarantee and the instructions for use outlined should be always observed together with considerations regarding building structure and existing Building Law.