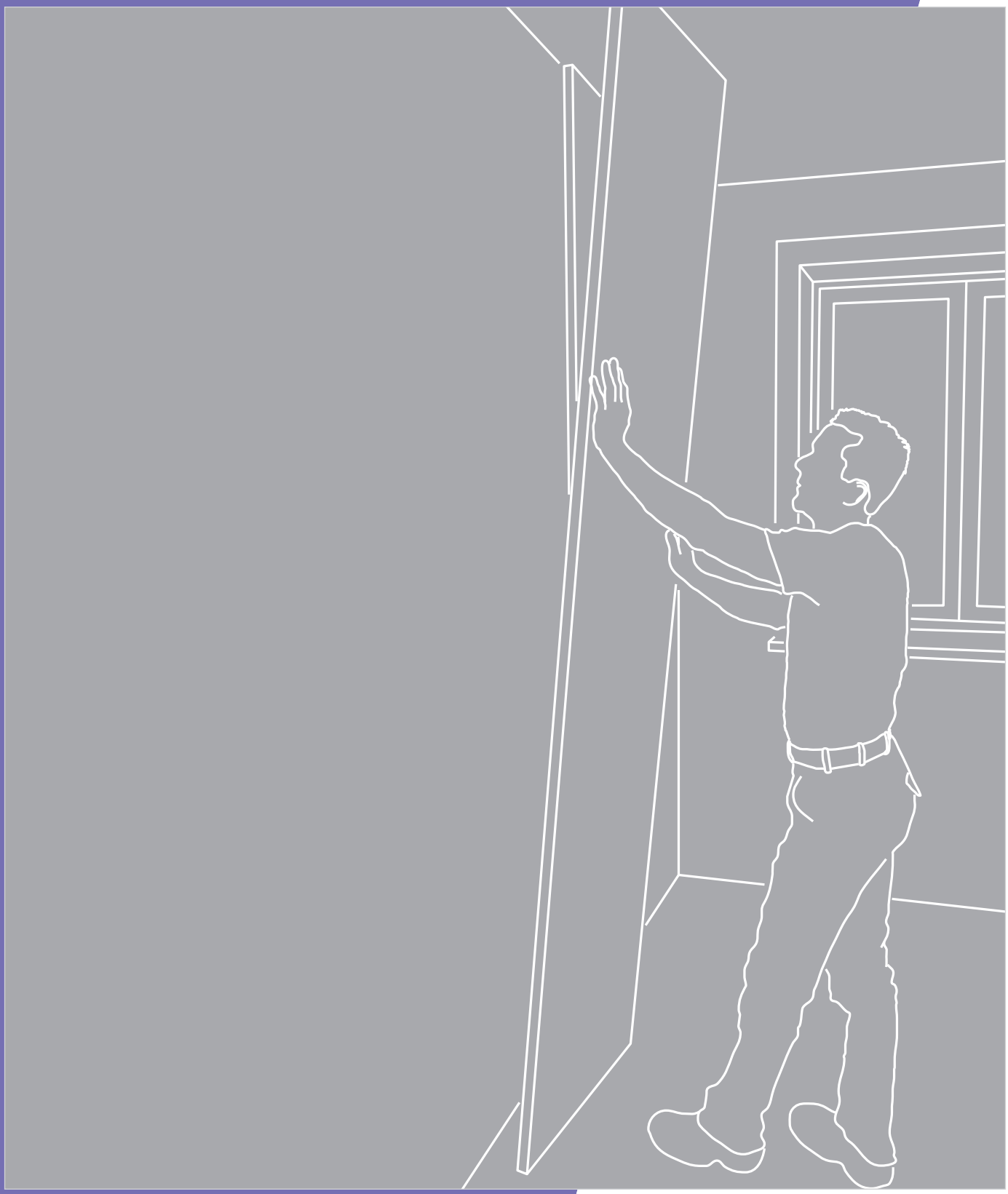
JACKOBOARD® Plano

Construction board for wall applications.



Installation Instructions

JACKON by BEWI

Contents

A General

A.1 Scope of application

These installation notes describe how to use and install JACKOBOARD® Plano construction boards as substructures for tiles, boards 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. in swimming baths, cold storage areas, etc.

A.2 General information on storage and use

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

A.3 Substrate Preparation

The substrate must be able to support the intended load with minimal deflection. Any surface contamination must be removed prior to installation. If necessary the surface should be treated with a primer. Newly installed concrete substrates should be completely cured prior to installation.

B Application

B. 1 Use on an even and adhesive substrate

JACKOBOARD® Plano can be laid on even and completely adhesive substrates by applying adhesive to the entire surface. It does not need to be dowelled as well. The substrate must be even and flush. No separating layers (e.g. paint residue) may hinder the adhesive bond with the substrate (e.g. plaster). The thin-bed mortar (e.g. standard synthetically enhanced cement adhesive) is applied to the wall using a coarse notched trowel. Then fully bed the construction boards, which may have to be cut to length, into the thin-bed mortar 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 align the construction boards to ensure that the resulting base is even and flush and suitable for thin-bed tiling.

The joints of the individual construction boards must be smoothed over with the JACKOBOARD® glass fibre tape (or equivalent) using tile adhesive. In wet areas, the board joints and penetrations must be sealed. Sealing can be done with the JACKOBOARD® 2-component sealing kit (or equivalent) or with the adhesive and sealing agent BOARD-FIX® (or equivalent). The JACKOBOARD® glass fibre tape is also required for bridging cracks when sealing with BOARD-FIX®. Refer to Point E for more information on sealing.

B. 2 Use on even and non-adhesive surface

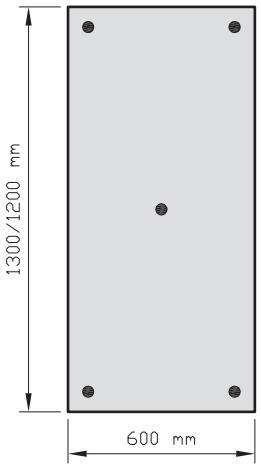
If the permanent bonding of the JACKOBOARD® Plano construction boards to the substrate cannot be guaranteed due to unsuitable surfaces, separating layers, etc., the construction boards must be dowelled in addition to the application of adhesive over the entire surface. The bonding and reinforcement procedures for the construction board are the same as described for application on an adhesive substrate.

In addition to reinforcing the board joints once the thin-bed mortar is completely dry, the construction boards must also be dowelled. Metal nail plugs (e.g. JACKOBOARD® metal plugs) should be used for plugs. The fastening points should be positioned according to Drawings 1 and 2.

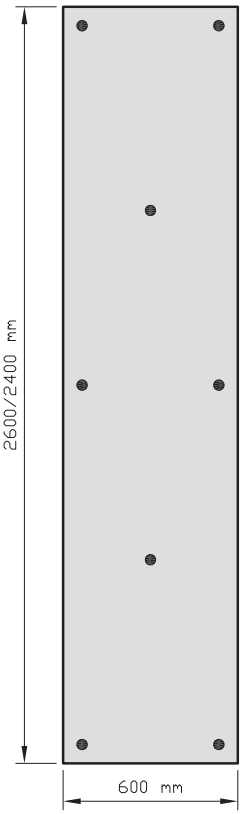
If 50 mm plugs are used, they must be inserted to a depth of at least 35 mm into the load-bearing substrate. The minimum insertion depth for 80 mm plugs (or longer plugs) is 50 mm.

Reinforcement and sealing of the construction board joints must be done as described in B.1.

Drawing 1



Drawing 2



B. 3 Use on an uneven substrate

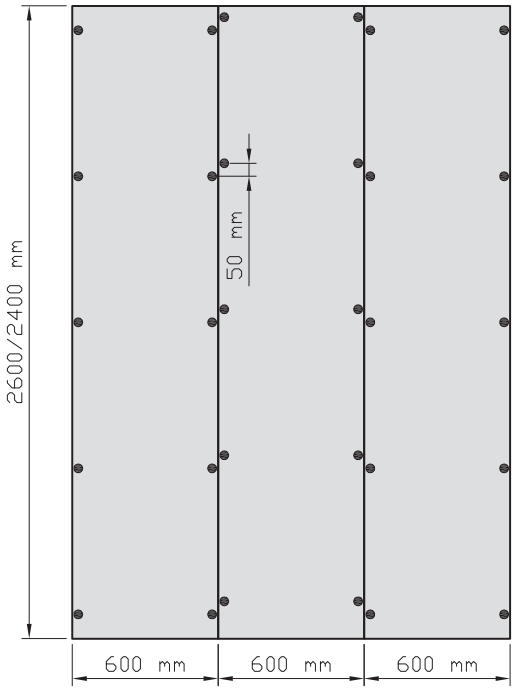
If full-surface bonding of the JACKOBOARD® Plano construction boards is not possible due to unevenness in the substrate, they must be fastened at specific points. Construction boards must be at least 20 mm thick for this purpose. Construction boards that are 4 or 6 mm thick are only suitable for full-surface bonding but not for spot fixing or for installation on a frame structure.
The adhesive mortar dabs are applied at specific points on the construction board. The number and arrangement of the mortar dabs should follow Drawings 1 and 2. Any standard mortar (e.g. synthetically enhanced cement adhesive) can be used. We recommend the use of quick-acting adhesives to speed up the work progress.

The construction board is applied to the wall by gently tapping it with a rubber hammer, taking care to ensure that the alignment of the boards creates an even and flush base for thin-bed tiling.

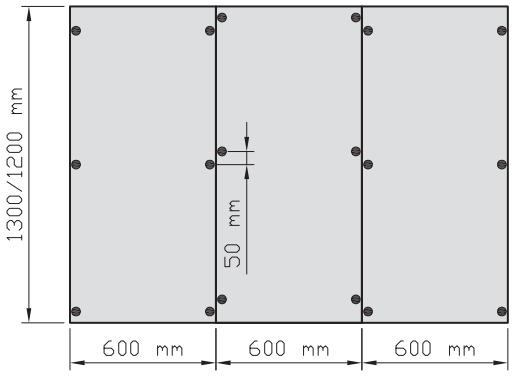
The size of the dabs of adhesive should ensure that, after tapping with the rubber hammer, the space between the construction board and the substrate is no more than 10 mm if possible. If the spaces are larger, they should be filled with left-over pieces of construction board. Once the dabs of mortar are completely dry, the construction boards can be dowelled. Metal nail plugs (e.g. JACKOBOARD® metal plugs) should be used for this purpose. 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 (or longer plugs) is 50 mm.

The construction board joints must be reinforced and/or sealed as described in Point B. 1.

Drawing 3



Drawing 4



B. 4 Use on stud frames

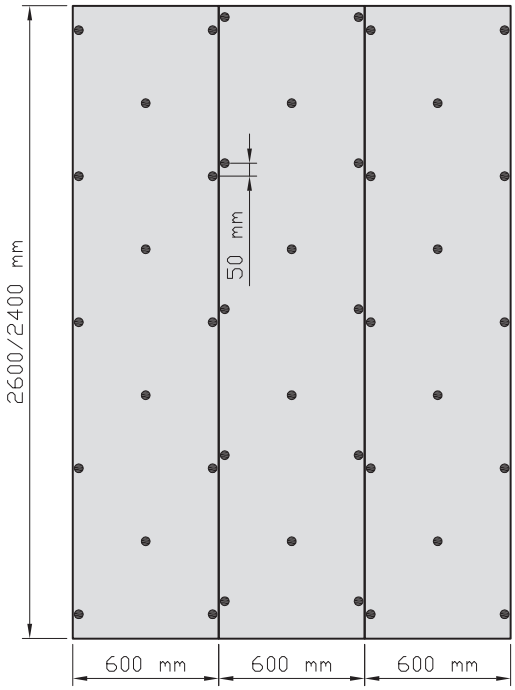
An even and flush-mounted timber substructure can be mounted on an existing load-bearing substrate using a suitable procedure, on which the JACKOBOARD® Plano can then be installed. The dimensions between the axes of the frame structure should not be more than 0.6 m.
The JACKOBOARD® Plano used to cover 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. Construction boards that are 4 or 6 mm thick are only suitable for full-surface bonding but not for spot fixing or for installation on a frame structure. Standard universal screws and JACKOBOARD® insulation board discs (stainless steel) are used to fasten the board to the timber structure. The insulation board discs must be sunk to the level of the board surface.

When mounting JACKOBOARD® Plano boards on a stud frame, e.g. to partition a room, we recommend working with a standard metal stud frame, whereby the spacing between the upright beams should be 60 cm. JACKOBOARD® construction boards (minimum thickness 20 mm) are fastened onto the metal stud frame using self-tapping screws and JACKOBOARD® insulation board discs (stainless steel).
The fastening points should be positioned according to Drawings 3 and 4. Construction boards with a thickness of 10 mm or more can be used if the frame spacing is halved to approx. 30 cm. In this case, the fastening points should be positioned according to Drawings 5 and 6.

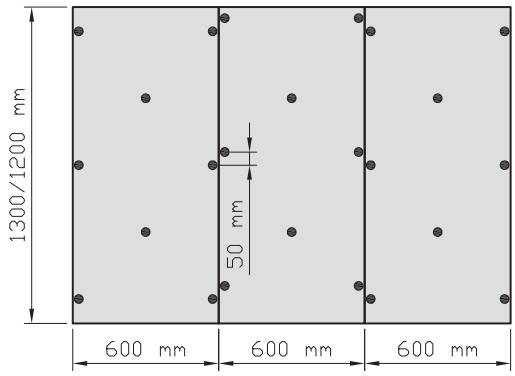
When mounting heavy objects, take care to ensure that the screws are not fastened to the foam core of the construction board but penetrate through to the wall at the back or to the installation frames. This must also be taken into account when mounting the construction boards on timber or metal stud frames or when spot gluing them. If necessary, the stud frame must be adapted accordingly.
Lighter objects can be fastened with JACKOBOARD® insulation dowels (or equivalent). Tensile load max. 3 kg per insulation dowel. The construction board must be at least 20 mm thick.

Reinforcement and sealing of the construction board joints must be done as described in B.1.

Drawing 5



Drawing 6



B. 5 Free-standing walls

JACKOBOARD® Plano boards must be at least 50 mm thick when building free-standing partition walls. Wall depths of up to 1200 mm can be realised with no need for additional reinforcement of 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 exposed (private or commercial use).

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.

Information: 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.

Commercial use

U profiles should be used to fasten the JACKOBOARD® Plano in the wall and floor area of the load-bearing substrate.

Reinforcement and sealing of the construction board joints must be done as described in Point 4. Reinforcement of the joints can be dispensed with in the interests of aesthetics, when fastening a free-standing wall to tiled surfaces. 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.

C Notes for fixing tiles to JACKOBOARD® Plano

The tiles can be glued directly to the construction board with Class C2 tile adhesive / flexible adhesive (in accordance with DIN EN 12004). 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.

D Notes for plastering on JACKOBOARD® Plano

When covering JACKOBOARD® Plano with plaster, an additional, full-surface reinforcement weave must be embedded in the upper third of the layer of plaster. The layer of plaster must be at least 3 mm thick but should not exceed 15 mm. Cement, lime cement and lime are some of the plasters that can be used. With the use of gypsum plaster, the board must first be suitably primed before applying the plaster. Please observe the instructions foruse issued by the relevant plaster manufacturer.

E Working instructions for JACKOBOARD® Plano used as a board-shaped sealing system in combination with tiles and board coverings in accordance with the ETA

The construction board can be used as a board-shaped sealing system for sealing walls and floors in wet rooms. Its suitability for this was confirmed upon receipt of the European Technical Assessment (ETA) and the associated CE mark. Special usage guidelines apply to this application which are described below.

E. 1 Sealing the board joints

The construction board can be worked in the wall area as described in B. The butt joints of the construction boards and the penetrations through the construction board must always be sealed. Sealing can be done with the BOARD-FIX® adhesive and sealing agent included in the kit or with the JACKOBOARD® 2-component sealing kit.

Version 1: Sealing with BOARD-FIX®

When sealing with BOARD-FIX®, the BOARD-FIX® is applied in strands from the cartridge to the longitudinal and/or transverse side of the JACKOBOARD® Plano construction board. Then press both construction boards firmly together so that any material that oozes out can be smoothed out. To prevent imperfections, make sure the adhesive is applied without any gaps, especially where joints may cross, e.g. at transitions from floor to wall. The bonding is foam to foam. In corners, it might be necessary to remove the mortar from the construction board in the bonding area. Then smooth over all tile joints with JACKOBOARD® glass fibre tape using the tile adhesives listed in the ETA.

Version 2: Sealing with JACKOBOARD® 2-component sealing kit

As an alternative to BOARD-FIX®, sealing can also be done with the JACKOBOARD® 2-component sealing kit.
This is done in accordance with the working instructions for "JACKOBOARD® 2-component sealing kit".

E. 2 Sealing pipe penetrations

Version 1:
Sealing with BOARD-FIX® and sealing sleeve.
To do this, first spray the joint between the pipe and the construction board with BOARD-FIX®. In addition, push a suitable sealing sleeve onto the pipe and glue it to the construction board surface with BOARD-FIX® over its entire surface.

Version 2:
Sealing with JACKOBOARD® 2-component sealing kit and sealing sleeve.
To do this, push a suitable sealing sleeve onto the pipe and glue it onto the construction board surface with 2-component sealant over the entire surface. Then make a 2nd application of the 2-component sealant on the top side of the sealing sleeve and in the transition to the construction board surface.

E. 3 Sealing screw and plug fastenings

Version 1: Sealing with BOARD-FIX®
Smooth over the construction board surface with BOARD-FIX® in the entire insulation board plate and metal plug area.

Version 2: Sealing with 2-component sealing kit
Stick on a piece of sealing tape with 2-component sealant in the area of the metal plug and insulation board plate. Then make a 2nd application of the 2-component sealant on the top side of the sealing tape.

E. 4 Repairs

Damage to the surface of the construction board or shower element can be repaired with BOARD-FIX® or with the 2-component sealing kit. To do that, the damaged area of the construction board is filled with BOARD-FIX® or the 2-component sealant from the 2-component sealing kit and smoothed level with the surface.
In conjunction with the 2-component sealant, also stick on a piece of sealing tape with the 2-component sealant in the damaged area. Then make a 2nd application of the 2-component sealant on the top side of the sealing tape and in the transition to the construction board surface.

E. 5 Tiling

The construction boards can be tiled after the seals described above have cured. For that, the tiles can be bonded directly onto the construction boards without further pretreatment. Only the tile adhesives listed in the ETA may be used.

JACKON Insulation GmbH
Carl-Benz-Straße 8
D-33803 Steinhagen
T +49 (0) 5204 9955 - 0
F +49 (0) 5204 9955 - 400
E info@jackodur.com
W www.jackon-insulation.com