

## wedi building board

### Wall and flooring application

#### A Wall application (interior)

##### I. Processing wedi building boards

###### a) Full-surface bonding (without dowelling) to load-bearing surfaces

- All surfaces must be firm, load-bearing, non-deformable and free of dust, dirt and other contaminants.
- Highly absorbent mineral surfaces (e.g. cement plasters, gypsum plasters) must be primed (recommended: wedi 110 primer).
- Smooth, non-absorbent surfaces (e.g. old tiles), which cannot be removed, must also be primed (recommended wedi 120 adhesive and contact primer).
- Any irregularities must be levelled with suitable levelling compounds (recommended: wedi 230 wall and floor repair compound).
- The residual surface moisture must not exceed the following values:

Gypsum-based plasters	1.0 %
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- The building boards (from a thickness of 4 mm) must be applied using thin-bed mortar (recommended: wedi 320 universal tile adhesive) and aligned. The joints of the individual building boards must be reinforced with wedi Tools reinforcement tape using commercially available thin-bed mortar (recommended: wedi 320 universal tile adhesive) or wedi Tools self-adhesive reinforcement tape.
- In areas exposed to splashing water, the board joints must be sealed with wedi Tools sealing tape using commercially available thin-bed mortar (recommended: wedi 320 universal tile adhesive). A further form of sealing is full-surface bonding of the joints using wedi 610 adhesive sealant.

###### b) Full-surface bonding (with dowelling) on non-load-bearing surfaces.

- This fixing method is recommended when permanent bonding of wedi building boards is not possible due to impervious surfaces, separating layers or similar. Building boards should be processed as described under a). The building boards must additionally be dowelled prior to reinforcing the joints.

wedi Tools metal dowels (galvanised or high-grade steel) should be used (five dowels/m<sup>2</sup>). The minimum dowel driving depth in the load-bearing surface is 35 mm. Arrangement of dowels is as described under Item **D**. The reinforcement and/or sealing of the board joints is as described under Item a).

###### c) Spot bonding (with dowelling) on uneven surfaces.

This fixing method is recommended when full-surface bonding is not possible due to uneven surfaces. Clots of mortar (recommended: wedi 360 flexible medium-bed mortar) must be applied to the building board (minimum thickness 20 mm) in a thickness corresponding to the requirements of the particular application. The number and arrangement of the clots of mortar should correspond to the arrangement for dowelling, i.e. minimum five clots of mortar/m<sup>2</sup> building board. The building boards can subsequently be fixed to the wall and it must be ensured that they are in vertical and horizontal alignment. The boards must also be dowelled in the area of the clots of mortar. wedi Tools metal dowels (galvanised or high-grade steel) should be used for this purpose. It may be useful to previously pierce the areas on the board where adhesive is to be applied using a screw driver. The minimum dowel driving depth in the load-bearing surface is 35 mm. Arrangement of dowels is as described under Item **D**. The reinforcement and/or sealing of the board joints is as described under Item a).

###### d) Installation on wooden or metal stud frames

The wooden or metal substructure should be in vertical and horizontal alignment and the distance between the uprights must not exceed maximum 600 mm. Lining takes place with wedi building boards with a minimum total thickness of 20 mm. If the distance between the uprights is reduced to 300 mm, building boards with a thickness of 10 mm and 12.5 mm can also be used.

The boards can be fixed to the substructure using standard wood or drywall screws and wedi Tools fixing discs (galvanised or high-grade steel) Arrangement of the screws is as described under Item **D**. Reinforcement and sealing of board joints is as described under Item a).

## II. Tiling wedi building boards

The building boards can be tiled directly after reinforcement without further pretreatment (recommended: wedi 320 universal tile adhesive, wedi 350 flexible marble adhesive schnell). To be noted is that joints between the wall and flooring system and the corner joints of wall linings must be expansion joints.

## III. Important information for processing and storing wedi building boards

Heavy items such as wash basins or WC pans as well as folding seats, supporting handles or similar must be fixed in the wall behind or in suitable installation frames. Load transfer must be ensured in the area of pressure points. The building boards are not suitable for spot fixing and free-standing use in this case. Lighter items (e.g. soap dishes, toilet roll holders) can be mounted using cavity dowels. Building boards with a thickness of 4 and 6 mm are only suitable for full-surface bonding, but not for spot bonding or mounting on a frame structure. Due to their high compressive strength, wedi building boards do not have sound-insulation properties. To fully exploit the water impermeable properties of wedi building boards, wedi Tools sealing tape should be used for the joints. It must be ensured that any penetrations in the building board such as those for pipes or screw or dowel fixing must be sealed with suitable sealants. For sealing pipe penetrations, wedi Tools sealing sleeves should be used. The above recommendations apply only to wall applications in rooms at normal temperature. We should be consulted before using the building boards in swimming pools, cold stores, etc. wedi building boards should be stored horizontally irrespective of their thickness. They must be protected from direct sunlight and moisture. The use of solvent-containing substances must be avoided. The information provided is correct to the best of our knowledge and is based on numerous practical laboratory tests. This information does not, however, provide any assurances in the legal sense.

## B Floor application (interior rooms)

### I. Processing wedi building boards

#### a) On mineral surfaces

- All surfaces must be firm, load-bearing, non-deformable and free of dust, dirt and other contaminants.
- Highly absorbent mineral surfaces (e.g. anhydrite screeds) must be primed (recommended: wedi 110 primer). Any sinter layers must be removed in advance.
- Smooth, non-absorbent surfaces (e.g. old tiles) and old paint, carpet adhesive etc., which cannot be removed, must also be primed with wedi 120 adhesive and contact primer.
- Installation on heated screeds is not recommended due to the insulating function of the building boards. Any unevenness must be removed with suitable levelling compounds (recommended: wedi 210 floor levelling compound for cement surfaces).
- The residual surface moisture must not exceed the following values:

Cement screeds	2.0%
Calcium sulphate screeds	0.5%

The building boards (from a thickness of 10 mm) can be installed using a thin-bed mortar (recommended: wedi 320 universal tile adhesive) and aligned. The building boards should be placed in the adhesive with staggered joints. The joints of the individual building boards must be reinforced with wedi Tools reinforcement tape using commercially available thin-bed mortar (recommended: wedi 320 universal tile adhesive) or wedi Tools self-adhesive reinforcement tape. It is recommended to reinforce the entire building board surface with 600 mm wide reinforcement tape (recommended: wedi Tools 600 mm reinforcement tape). In areas exposed to splashing water, the board joints must be sealed with wedi Tools sealing tape using commercially available thin-bed mortar (recommended: wedi 320 universal tile adhesive). A further form of sealing is full-surface bonding of the joints using wedi 610 adhesive sealant.

## b) On wood surfaces

Existing wooden beam ceilings must be checked for their load-bearing capacity. The wooden structure must not yield or sag (maximum deflection 1/600) and must be as rigid as possible and have the same height. Loose floorboards or planks must be screwed down if necessary. Uneven floorboards or planks must be levelled (fill joints, prime and level with levelling compound).

The following minimum requirements for wooden substructures must be observed:

Wood-based panels:  $\geq 16$  mm,  $\rho \geq 600$  kg/m<sup>3</sup>

Plywood panels:  $\geq 16$  mm,  $\rho \geq 520$  kg/m<sup>3</sup>

Floorboards/planks:  $\geq 21$  mm

Processing is as described under a). Before reinforcing the board joints after the thin-bed mortar has fully set, it may be necessary to fix the boards using wedi Tools fixing discs (galvanised or high-grade steel) with wood or drywall screws. For this purpose, at least five screws must be used per/m<sup>2</sup>, which must be screwed at least 20 mm into the wooden structure. The screws must be placed 30 mm away from the edge of the building board. The screws must be tightened until the fixing disc is flush with the surface of the building board. Reinforcement and sealing of board joints is as described under Item a). The entire surface of the building board must subsequently be reinforced with 60 cm wide reinforcement tape (recommended: wedi Tools 600 mm reinforcement tape).

## II. Tiling wedi building boards

To be noted is that joints between the wall and flooring system and the corner joints of wall linings must be expansion joints. Expansion joints in screed or building joints used for borders must be suitable for floating screeds in accordance with the applicable requirements. Tiles must have a minimum size of 10 x 10 cm and a minimum thickness of 7 mm. For tiling on wood, the maximum tile size is 33 x 33 cm. The building boards can be tiled directly after reinforcement without further pretreatment (recommended: wedi 320 universal tile adhesive. wedi 370 synthetic resin).

## III. Important information for processing and storing wedi building boards

wedi building boards are approved for use on floors in rooms with an ordinary residential load. Wheel loads with high concentrated loads are not permitted. wedi building boards should be stored horizontally irrespective of their thickness. They must be protected against direct sunlight and moisture. The use of solvent-containing substances must be avoided.

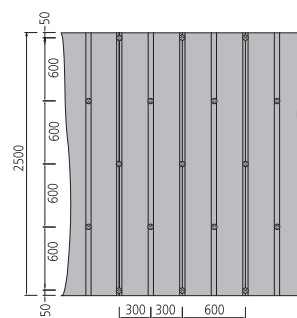
Due to their high compressive strength, wedi building boards do not have sound-insulation properties. The information provided is correct to the best of our knowledge and is based on numerous practical laboratory tests. This information does not, however, provide any assurances in the legal sense.

## C Installation of building boards for sealing purposes in conjunction with tiles on walls and floors for load classes A and B.

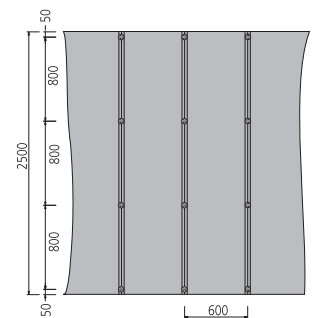
This applies to the installation of building boards on walls and floors in rooms that are directly exposed to tap or cleaning water frequently or for prolonged periods, such as, for example, areas around swimming pools and showers as well as installation on walls and floors of indoor and outdoor tanks filled with water with drinking water characteristics. The procedure for this application differs from the previously described general application guidelines. Further information is available at "<http://www.wedi.de>".

## D Arrangement of dowels and screws

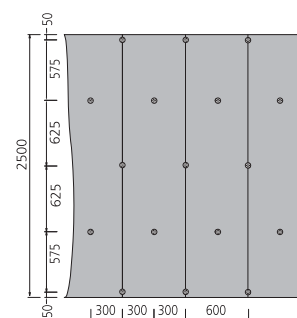
### Wall structures with 60 board width



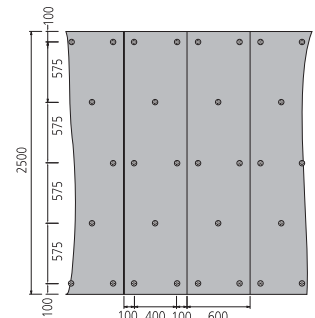
Application: 300 mm studding with fixing discs and screws for BA 10; BA 12.5 mm.



Application: 600 mm studding with fixing discs and screws from BA 20 mm.



Application: Full-surface bonding and dowelling from BA 04 mm.

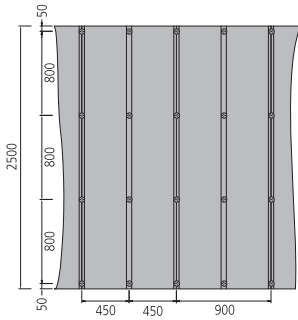


Application: Mortar and dowelling from BA 20 mm.

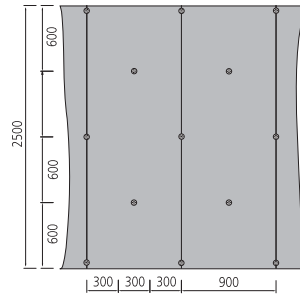
# Application guidelines



## Wall structures with 90 board width

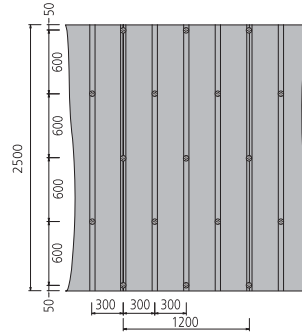


Application: 450 mm stud-  
ding with fixing discs and  
screws for BA12.5 mm.

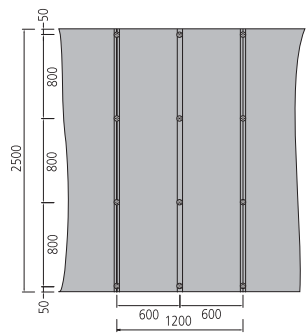


Application: Full-surface  
bonding and dowelling for  
BA12.5; BA20; BA30;  
BA50 mm.

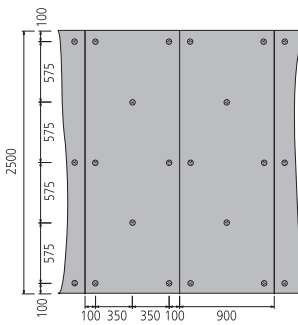
## Wall structures with 120 board width



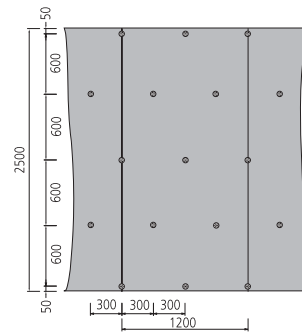
Application: 300 mm stud-  
ding with fixing discs and  
screws for BA12.5 mm.



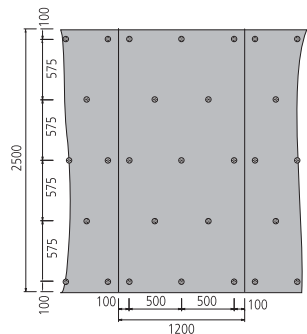
Application: 600 mm stud-  
ding with fixing discs and  
screws for BA30; BA50 mm.



Application: Mortar and  
dowelling for BA20; BA30;  
BA50 mm.



Application: Full-surface  
bonding and dowelling for  
BA12.5; BA30; BA50 mm.



Application: Mortar and  
dowelling for BA30;  
BA50 mm.