wedi building board

Wall and floor application

A Wall application (internal)

I. I. Installing wedi building boards

a) Full-surface bonding (without dowelling) on load-bearing substrates

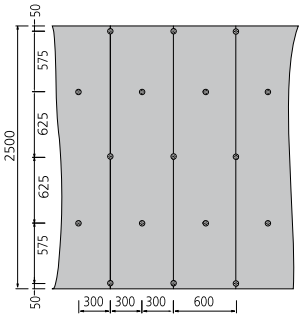
- All substrates must be solid, load-bearing, non-deformable and free from dust, dirt and other contaminations.
- Primer must be applied to both highly absorbent mineral surfaces (e.g. cement or gypsum plasters) and smooth, non-absorbent substrates (e.g. old tiles) which cannot be removed.
- Fill in missing areas with suitable levelling compounds.
- The residual moisture content of substrates must not exceed the following values:

Gypsum-bound plasters	1,0 %

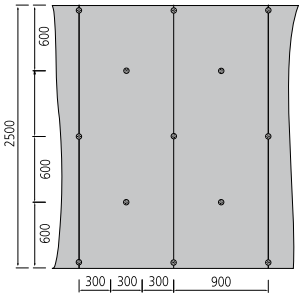
- Apply a commercially available thin-bed mortar (recommendation: wedi 320 universal tile adhesive) to the complete surface of the building boards (minimum thickness of 6 mm) and align them fully.
- In dry areas, after alignment to reinforce butt joint edges of individual building boards, either use wedi Tools joint reinforcement tape and bed in with the same mortar as above or reinforce the joints without the need for a mortar using wedi Tools self-adhesive reinforcement tape.
- In wet areas, the board joints must be sealed with wedi Tools sealing tape bedded in with a flexible sealant (recommended: wedi 520). Full-surface bonding of butt joint edges using wedi 610 adhesive sealant is another type of sealing. In this case, the reinforcement of joints should be carried out the same way as in dry areas explained above.

b) Full-surface bonding (with dowelling) on substrates without load-bearing capacity

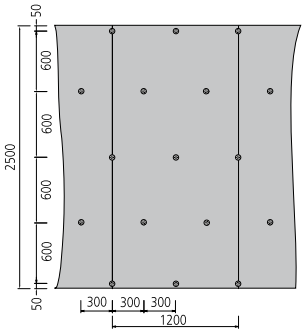
- This mounting method is applied if permanent bonding of wedi building boards to the substrate is not possible due to a blocking surface, separating layers or the like. The installation of the building boards should be carried out as described under a). In addition to this, the building boards must be dowelled before the butt joints are reinforced. For this, wedi Tools metal dowels (galvanised or stainless steel) are recommended at a minimum fixing rate of 5 dowels/m². The minimum dowel penetration depth into the load-bearing substrate must be 35 mm. The dowels must be positioned according to the diagrams. The reinforcement and/or sealing of the building board butt joints should be carried out as explained under a).
- Dowels must be positioned according to the diagrams on this page. The reinforcement and/or sealing of the building board butt joint edges should be carried out as explained under a).



Application: full-surface bonding and dowelling from BA06 mm.



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

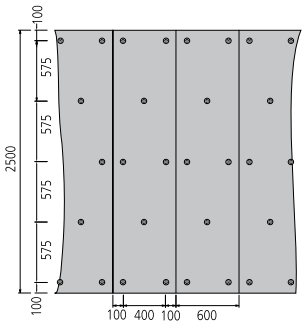


Application: full-surface bonding and dowelling for BA12.5; BA30; BA50 mm.

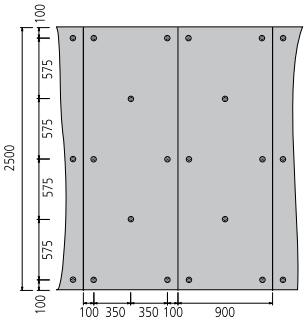
c) Spot bonding (with dowelling) on uneven substrates

This mounting method is applied if full surface bonding to the substrate is not possible due to existing surface irregularities. wedi building boards with a thickness of 20 mm or more are

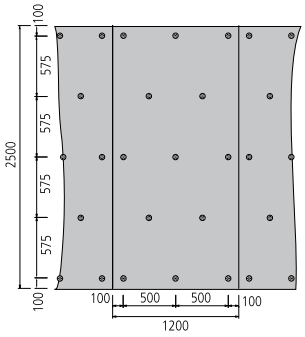
used for these types of applications depending on the task to be solved. Use a screwdriver to punch holes (as per dowelling rule: diagrams below, min 5/m²) then apply dabs of thin-bed mortar (recommendation: wedi 320 universal tile adhesive) in line with the hole markings. The building boards then placed against the wall and must be aligned to ensure that the sub-strate is even, perpendicular and flush. Allow the dabs to dry before drilling holes through the pre-punched holes/mortar dabs into the wall (8 mm drill bit recommended). Insert wedi Tools metal dowels (galvanised or stainless steel) into the holes through the dab of mortar and wait until the mortar hardens before hammering them totally in. The insertion depth of the dowel in the load-bearing substrate must not be less than 35 mm and the dowels must be positioned according to the diagrams below. The reinforcement and/or sealing of the building board butt joint edges should be carried out as explained under a.)



Application: mortar dabs and dowelling from BA20 mm.



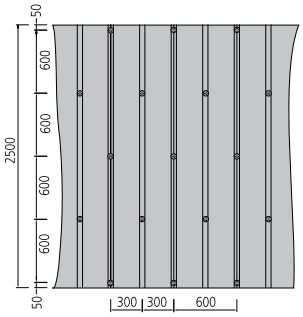
Application: mortar dabs and dowelling for BA20; BA30; BA50 mm.



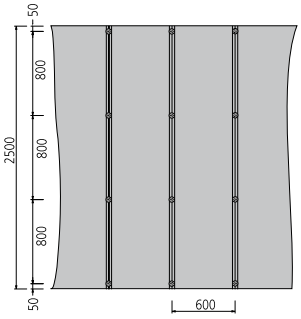
Application: mortar dabs and dowelling for BA20; BA30; BA50 mm.

d) Installation on wooden and/or metal stud frames

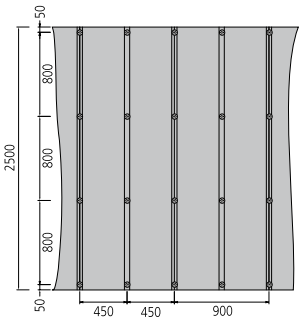
This mounting method should be carried out in such a way that it is perpendicular, flush and does not exceed a maximum stud distance of 600 mm. For distances between 400 – 600 mm, the minimum required thickness of wedi building board is 20 mm. For distances between 400 – 300 mm the minimum required thickness of wedi building board is 12.5 mm. Where the stud distance is reduced to/below 300 mm, 10 mm thick building boards can also be used. Mounting to the substructure is carried out by using commercially available wood or drywall screws and wedi Tools washers (galvanised or stainless steel). Washers must be positioned according to the diagrams below. As an alternative, it is possible to bond wedi building boards directly to the stud frame using wedi 610. The reinforcement and sealing of the building board butt joint edges should be carried out as explained under a).



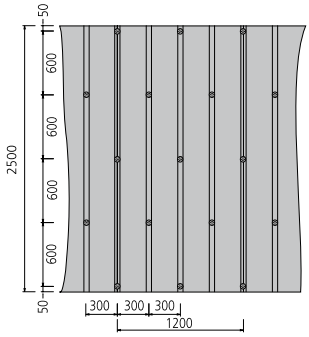
Application: stud frame 300 mm with washers and screws for BA10; BA12.5 mm.



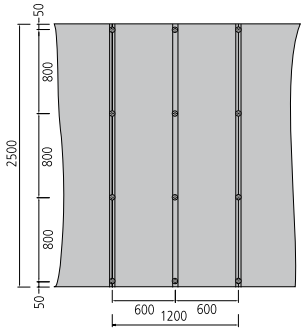
Application: stud frame 600 mm with washers and screws as from BA20 mm.



Application: stud frame 450 mm with washers and screws for BA12.5 mm.



Application: stud frame 300 mm with washers and screws for BA12.5 mm.



Application: stud frame 600 mm with washers and screws for BA30; BA50 mm.

II. Tiling wedi building boards

After the reinforcement of all joints, once the sealant is cured, tiling of wedi building boards can commence without any further preliminary treatment. A universal tile adhesive is also recommended for the tiling (recommended: wedi 320 universal tile adhesive) It must be ensured that all wall and floor joints, including corner joints, are carried out as expansion joints.

III. Applying plaster to wedi building boards

Primer must be applied to wedi building boards before plastering. The manufacturer's specifications must be observed.

IV. Important information on installing and storing wedi building boards

When installing heavy objects such as wash basins or toilet pans as well as folding seats, support handles or similar objects, it must be ensured that they are mounted in the wall behind or in suitable installation frames. In order to ensure guaranteed load-transfer in the area of pressure points., the tile size must be at least 10 × 10 cm and the tile thickness at least 7 mm. Furthermore, spot bonding or free-standing installation of wedi building boards is not allowed. Lightweight objects (e.g. soap dish or toilet roll holder) can be fastened using the wedi Tools cavity dowels set. Building boards with a thickness of 6 mm are only suitable for full-surface bonding. They are not suitable for spot bonding or assembly on a frame structure. In order to be able to fully benefit from the waterproof properties of wedi building boards, wedi Tools sealing tape should be applied to the butt joints. Full-surface bonding of butt joints using wedi 610 adhesive sealant is another type of sealing. Furthermore, it must be ensured that any penetrations of the building board, such as those made for pipes or mounting with screws or dowels, are sealed with suitable sealing materials. The above recommendations only relate to wall applications internally with a normal room temperature. When using the building board in swimming pools, cold stores etc., please contact us for prior consultation. wedi building boards should generally be stored in a laying position irrespective of their thickness. They must be protected against direct sunlight and moisture. Processing with solvent-containing substances must be avoided. The information contained in this document is correct to the best of our knowledge and was confirmed by numerous laboratory and practical tests. However, it does not represent any assurance in the legal sense.

B Floor application (for living spaces and other areas used as residential spaces)

I. Installing wedi building boards

a) On mineral substrates

- All substrates must be solid, load-bearing, non-deformable and free from dust, dirt and other contaminations.
- Primer must be applied to highly absorbent, mineral substrates (e.g. anhydrite screeds). Any layers of sinter must be removed in advance.
- Primer must also be applied to smooth, non-absorbent substrates (e.g. old tiles) and old carpet adhesives etc. which cannot be removed.
- Laying the building boards on heated screed is not recommended due to their insulation properties. Surface irregularities must be removed using suitable levelling compounds.
- The residual moisture content of the substrates must not exceed the following values:

Cement screeds	2.0 %
Calcium sulphate screeds	0.5 %

The building boards (from a thickness of 4 mm) are installed on the substrate with a thin-bed mortar (recommended: wedi 320 universal tile adhesive) and aligned. The building boards should be laid in the adhesive bed in such a way that the joints are offset. The joints of individual building boards must be reinforced with wedi Tools joint reinforcement tape fully embedded in a commercially available thin-bed mortar (recommended: wedi 320 universal tile adhesive) or with wedi Tools self-adhesive joint reinforcement tape. In areas of 20 m^2 or larger and in all areas with electric underfloor heating, the full surface of the entire building board area must be reinforced with 600 mm wide reinforcement matting (recommendation: wedi Tools joint reinforcement tape 600 mm). In areas exposed to splash water, the board joints must be sealed with wedi Tools sealing tape bedded in with a flexible sealant (recommended: wedi 520). Full-surface bonding of butt joint edges using wedi 610 adhesive sealant is another type of sealing.

b) On wooden substrates

The load-bearing capacity of existing timber beam ceiling structures must be checked. The wooden structure must not give way or buckle (maximum sag: l/300), must be as rigid as possible and secured against height offsets. Loose planks or floorboards must be screwed down again if necessary. Uneven floorboards must be levelled (injection-mould floorboard joints, apply primer to the plank floor and level it with a suitable levelling compound).

The following minimum specifications for the wooden substructure must comply with:
Wood-based panels: ≥ 16 mm, ρ ≥ 600 kg/m³
Plywood panels: ≥ 16 mm, ρ ≥ 520 kg/m³
Planks/ floorboards: ≥ 21 mm
The processing must be carried out as described under a.) In addition to this, after hardening of the thin-bed mortar but before the reinforcement/sealing of joints, the building boards must be mounted mechanically using commercially available wood or drywall screws with wedi Tools washers (galvanised or stainless steel) at a minimum fixing rate of 5 washers/m². The insertion depth of the screws in the wooden structure must not be less than 20 mm and the screws must be tightened until the washer is flush with the building board surface. The sealing of the building board butt joint edges should be carried out as described under a). In areas of 20 m² or larger and in all areas with electric underfloor heating, the full surface of the entire building board area must be reinforced with 600 mm wide reinforcement matting (recommendation: wedi Tools joint reinforcement tape 600 mm).

II. Tiling wedi building boards

When tiling, it must be ensured that all wall and floor joints, including the corner joints, are carried out as expansion joints. Expansion joints in the screed or building expansion joints used as field boundary must be carried out in line with the rule for floating screeds. The tile size must be at least 10 × 10 cm and the tile thickness at least 7 mm. After the reinforcement of all joints, once the sealant is cured, tiling of wedi building boards can commence without any further preliminary treatment.

III. Important information on installing and storing wedi building boards

The above recommendations only relate to floor applications in living spaces and areas subject to loads similar to residential spaces. Rolling loads with high point loading are not permissible. wedi building boards should generally be stored in a laying position irrespective of their thickness. They must be protected against direct sunlight and moisture. Processing with solvent-containing substances must be avoided.
Due to the high compressive resistance, the building boards do not have impact sound insulation properties. The information contained in this document is correct to the best of our knowledge and was confirmed by numerous laboratory and practical tests. However, it does not represent any assurance in the legal sense.

C Building boards for sealing purposes in combination with tile and slab covering on wear resistance class A and B wall and floor surfaces

This applies to building boards being installed on directly exposed wall and floor surfaces in areas in which service and cleaning water is handled frequently or for a long period of time, such as areas around swimming pools and shower facilities as well as to building boards being installed on wall and floor surfaces of indoor and outdoor tanks which are filled with potable water. The installation in such instances would differ from the general application guidelines described above. Please contact us for technical support. German General Technical Approvals can be found at www.wedi.net.