

Cover, design and construct

Things to know and technology





wedi products and systems are of a high standard of quality and have received numerous certifications throughout Europe.

 <p>wedi GmbH H1717893/01 P0568101/01 P0568102/01 P0568103/01 P0568104/01</p>	 <p>BARBEREIPREI DIN Geprüft</p>	 <p>VIT VIT-C-3043-08 FLIESENTECHNIKAUT</p>	 <p>Architects' Darling Awards 2013 Silber 90 Herize</p>	 <p>CE 0799 System 24 wedi GmbH Hofeldstraße 51 48282 Ermsdetten 13 0799-CPD-132 DoP 0001 ETA-130385 ETAG 022 Teil 9</p>
 <p>wedi er rk GODKENDT Vard 7.32/1688 Gulv 7.22/1727</p>	 <p>RAKENNUSMATERIAALIN M1 KASTUOKKA</p>	 <p>SINTEF</p>	 <p>ok POWER</p>	<p>Baustoff mit wasserdichten Platten und weiteren Komponenten zur Herstellung einer Abdichtung unter einer Nutzschicht für die Verwendung in innen liegenden Nasszellen. Klassifizierung des Systems und deklarierter Produkt- und Systemeigenschaften siehe Anhang 1 der ETA-130385.</p>
 <p>CSTB Avis Technique 9+13/07-855 Secrétariat de la commission des Avis Techniques</p>	 <p>CSTB Avis Technique 13/12-1187 Secrétariat de la commission des Avis Techniques</p>	 <p>ÉMISSIONS DANS L'AIR INTÉRIEUR A+</p>		

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wedi building board

General product description

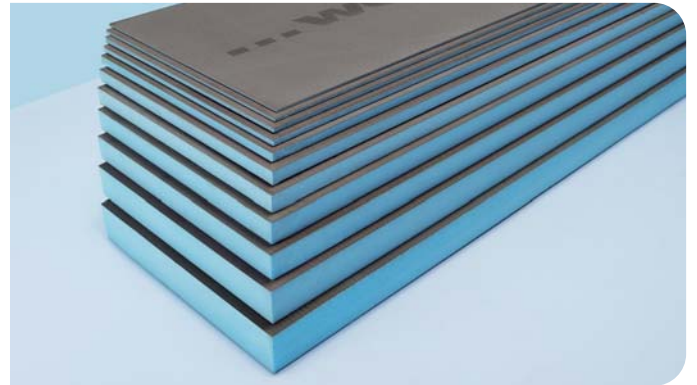
The wedi building board has a blue core made from rigid extruded polystyrene foam. The rigid foam is reinforced with fibreglass fabric on both sides (with alkali-resistant finish) and coated with a polymer-modified cement mortar.

Applications

With its special properties, the wedi building board has a wide variety of applications:

- Carrier element for laying tiles, slabs and natural stone floor coverings using the thin-bed method
- Adhesive surface for applying plaster, tile adhesive and other materials
- Moisture protection
- Effective heat insulation
- Design element
- Composite sealing with tile and slab coverings of load class A and B (directly loaded walls and floors in rooms in which tap or cleaning water is used very frequently or for long periods, walls and floors of indoor and outdoor pools that are filled with water with the properties of drinking water). More info available at www.wedi.eu

wedi building boards are approved for indoor use in rooms at normal temperature. Contact your wedi application specialist for advice on special applications (swimming pools, freezer facilities, outdoor areas etc.). wedi building boards are approved for use on floors in rooms with an ordinary residential load. Wheeled loads with high concentrated loads are not permitted.



Product properties

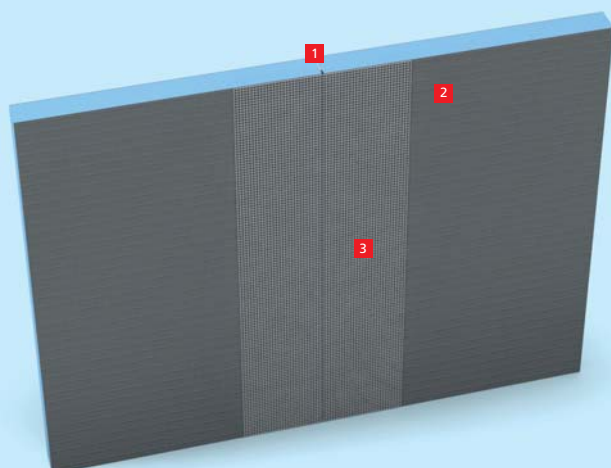
All wedi building boards can be applied to almost any surface. They are waterproof, heat insulating, versatile, lightweight and dimensionally stable, and they can be cut, shaped and installed quickly.

Surface requirements, laying

Information on the processing and surface requirements can be found in the "General guidelines for use of wedi building boards, wall and floor applications".

Form of delivery and storage

- Boards on pallets
- In principle, wedi building boards should be stored flat irrespective of their thickness. They should be protected against direct sunlight and moisture.



The strong tile backing wedi building board

The completely waterproof building board offers the perfect substrate for ceramic coverings thanks to high adhesion. The joints can be sealed using only wedi 610 – officially approved and tested.

- 1 wedi 610
- 2 wedi building board
- 3 wedi *Tools* joint reinforcement tape

Technical properties – Rigid foam

HCFC-free extruded polystyrene rigid foam with closed cell structure and flame-retardant additive.

Long-term compressive strength (50 years) \leq 2% compression EN 1606	0.08 N/mm ²
Compressive resistance or compressive strength at 10% compression EN 826	0.25 N/mm ²
Associated modulus of elasticity EN 826	10–18 N/mm ²
Thermal conductivity EN 13164	0.036 W/mK
Tensile strength EN 1607	0.45 N/mm ²
Shearing resistance EN 12090	0.2 N/mm ²
Shear modulus EN 12090	7 N/mm ²
Bulk density EN 1602	32 kg/m ³
Resistance to water vapour diffusion (μ) EN 12086	100
Water absorption under long-term immersion EN 12087	\leq 1.5 % by vol.
Capillary action	0
Linear coefficient of thermal expansion	0.07 mm/mK
Temperature limits	-50°C / +75°C
Fire behaviour DIN 4102	B1
Propellant gas, carbon dioxide, GWP value	1

Technical data of building board

Fire behaviour DIN 4102-1 (from 4 mm board thickness)	B2
Sound insulation DIN EN ISO 140-3 (at board thickness of 12.5 mm)	R _{w,P} 23 dB
Fire behaviour EN 13501	E
Bending stress based on DIN 53293	3900 kPa (mean value)
Adhesive tensile strength	0.28 N/mm ²
Weight: wedi building board (1250 x 600 x 4 mm)	2.7 Kg
wedi building board XXL (2500 x 1200 x 50 mm)	13.8 Kg
Linear coefficient of thermal expansion	0.017 mm/mk

Thermal insulation values of the building board

Nominal thickness in mm	Net thickness XPS in mm	Actual U-values incl. transition values		$\lambda d=0,036$
		R-value (m ² K)/W	U-value W/m ² K ¹⁾	$\lambda d*1,05 = \lambda$ Rated value
4	2,8	0.07	4.10	0.0378
6	4	0.11	3.63	0.0378
10	8	0.21	2.62	0.0378
12.5	10.5	0.28	2.23	0.0378
20	18	0.48	1.55	0.0378
30	28	0.74	1.10	0.0378
40	38	1.01	0.85	0.0378
50	48	1.27	0.69	0.0378
60	58	1.53	0.59	0.0378
80	78	2.06	0.45	0.0378
100	98	2.59	0.36	0.0378

¹⁾ When determining the U-value, only the wedi building board and the heat transmission resistances $1/\alpha_i$ and $1/\alpha_a$ for external walls are taken into account. In specific applications, the existing masonry and other layers must also be included.

Building board Construct, longitudinal, calculation of diameter

Thickness (in mm)	Outer diameter (in mm)	Full circles per board
20	363	0.5
30	538	0.4
50	890	0.2

Building board Construct, transversal, calculation of diameter

Thickness (in mm)	Outer diameter (in mm)	Full circles per board
20	363	2.2
30	538	1.5
50	890	0.9

wedi *Moltoromo* | Modular wall system

General product description

wedi Moltoromo is a modular wall system for quick and simple shower or room partitioning.

Applications

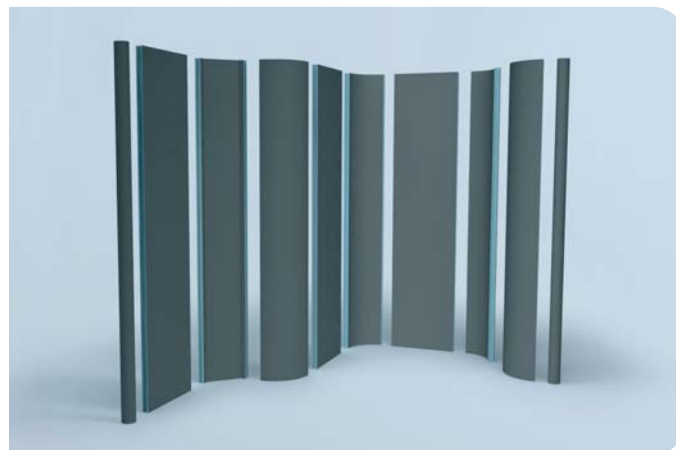
Shower and room partitioning for wet and dry areas that are covered with tiles, slabs or natural stone on at least one side.

Product properties

- Waterproof
- Thermally insulating
- Lightweight and stable

Surface requirements

Joints between walls, floor and ceiling should be solid, load-bearing, non-deformable, dry and free of dirt and other contaminants.



Instructions for subsequent work

Tiles, slabs or natural stone coverings and mineral plasters can be applied to the wall segments 24 hours after installation.

Technical properties – Rigid foam

Extruded polystyrene rigid foam core	XPS
Long-term compressive strength (50 years) $\leq 2\%$ compression DIN EN 1606	0.08 N/mm ²
Compressive resistance at 10% compression EN 826	0.25 N/mm ²
Thermal conductivity EN 13164	0.036 W/mK
Bulk density EN 1602	32 kg/m ³
Temperature limits	-50°C / +75°C
Fire behaviour DIN 4102	B1
Fire behaviour EN 13501	E

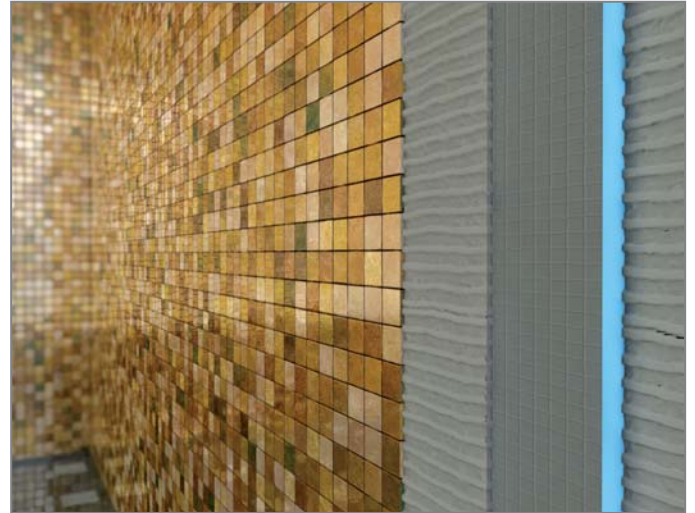
Moltoromo technical values

Element height	2600 mm
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Surface design

Ceramic coverings

Ceramic coverings offer various possibilities for wall and floor design. Depending on the intended use and personal taste, there is a wide variety of tiles and boards with different shapes, colours and materials. Here, the wedi building board is the perfect carrier element for ceramic coverings as the tile can be installed directly to the board surface without any additional steps needed.

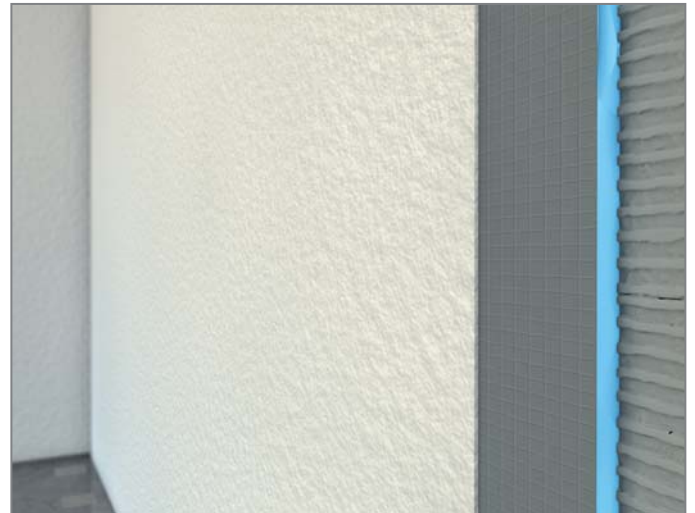


Plasters and fillers

Today, plasters are not only used for creation of a plain surface for tiling, painting or wallpapering, but they also represent a visual design element. Also here, the wedi building board is the perfect substructure.

! Important information:

Contact the wedi application specialist for advice on areas with shock loads. Plasters containing gypsum require priming of the building board.



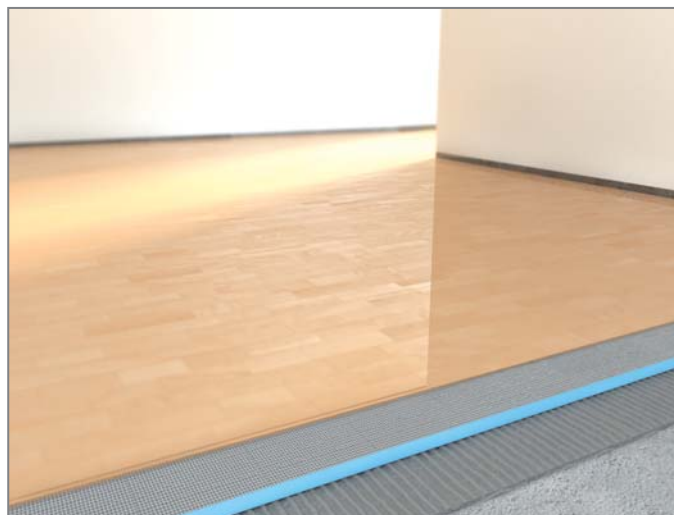
Natural stone coverings

Natural stone coverings have a very particular flair. They are made from natural stones and maintain their visual appearance as they are neither ground nor polished. This results in special characteristics such as the irregular colouration or pattern. wedi building boards are an ideal carrier element and allow for easy and fast installation.

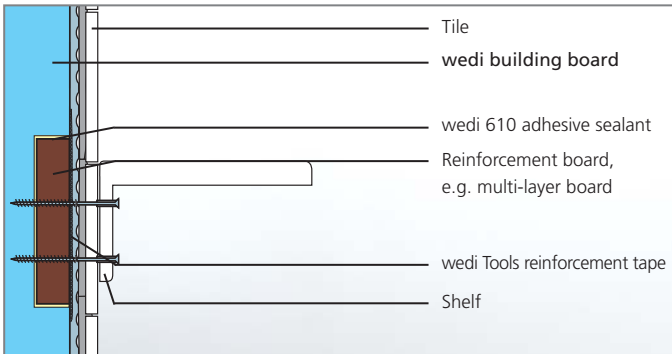


Laminates / ready-to-lay parquets

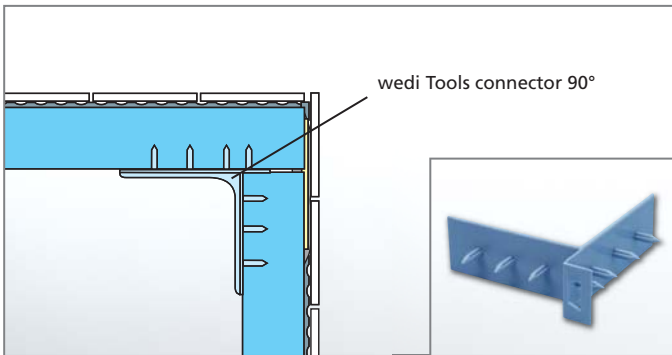
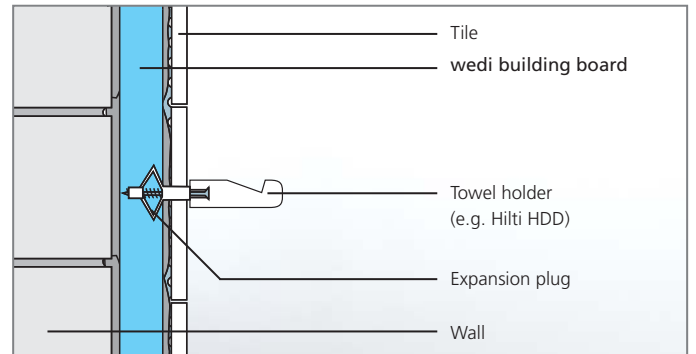
Laminates and ready-to-lay parquets are an alternative to ceramic floor coverings. Laminate is a comparatively low-priced material that is only coated with a decorative layer; parquet is a wooden flooring that – depending on quality – may be very durable. Both floor coverings are available in many different wood designs and colours as well as various qualities. Also here, the wedi building board is the perfect carrier element where the laminate is laid as a floating floor.



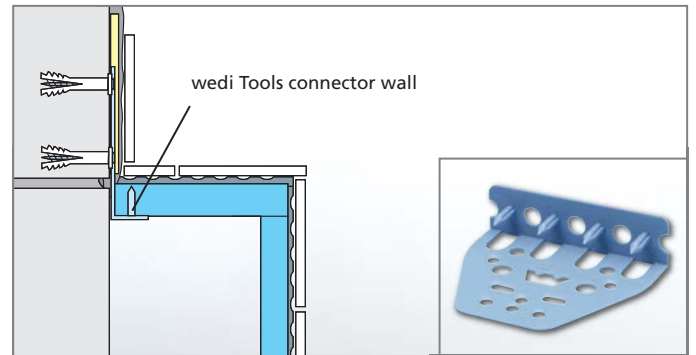
Fastening and installation of bathroom furniture and accessories



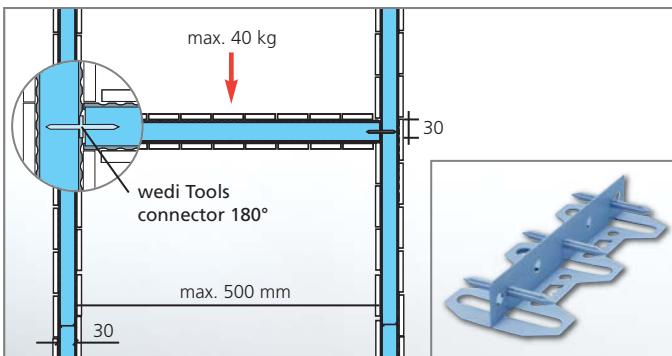
Fastening behind ceramic.



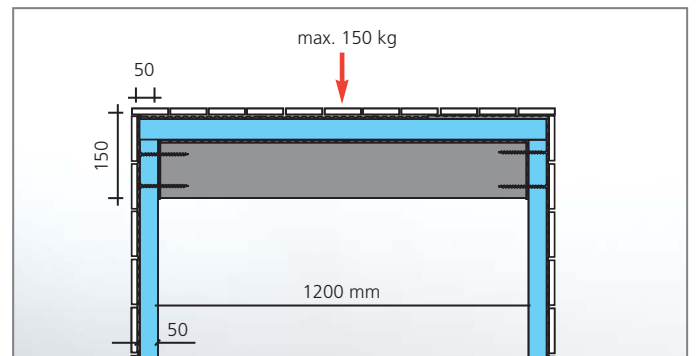
Connection of two building boards with an angle of 90°.



Fastening of building board structure to a wall.



Load-bearing capacity and exemplary use of wedi Tools connector 180°.

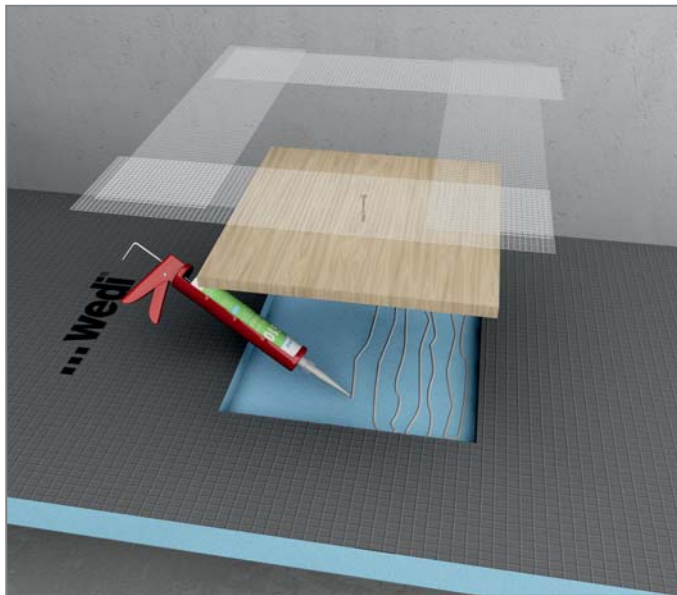


Load-bearing capacity.

wedi system components:

- wedi Tools connector wall
- wedi Tools connector 90°
- wedi Tools connector 180°
- wedi Tools fixing anchor
- wedi 610 adhesive sealant
- wedi Tools reinforcement tape

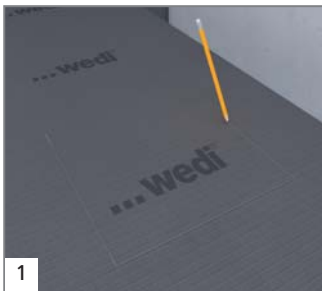
Installation of reinforcement boards



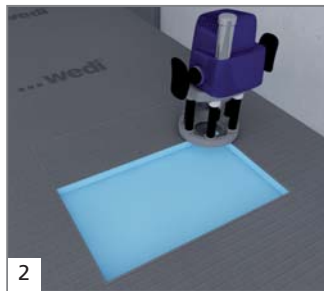
Reinforcement boards can be integrated into the wedi building boards to further stabilise the wall and floor surfaces. Only a few steps are required to grant additional stability for heavy objects such as shelves, towel holders or radiators.

wedi system components:

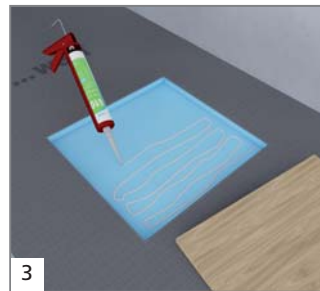
- wedi building board
- wedi *Tools* self-adhesive reinforcement tape
- wedi 610 adhesive sealant



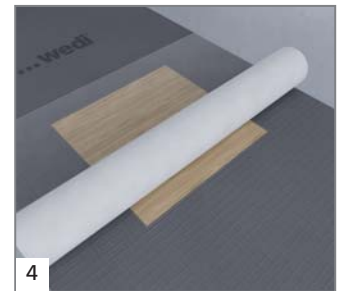
1 Mark the exact position for the reinforcement board.



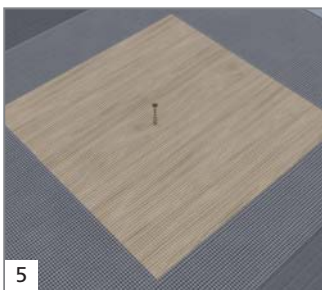
2 Cut the marked area by using a router. The depth depends on the thickness of the reinforcement board. The adhesive adds further 2 mm.



3 Bond reinforcement board flush-mount by using wedi 610 adhesive sealant.



4 Then, reinforce with self-adhesive wedi *Tools* reinforcement tape.

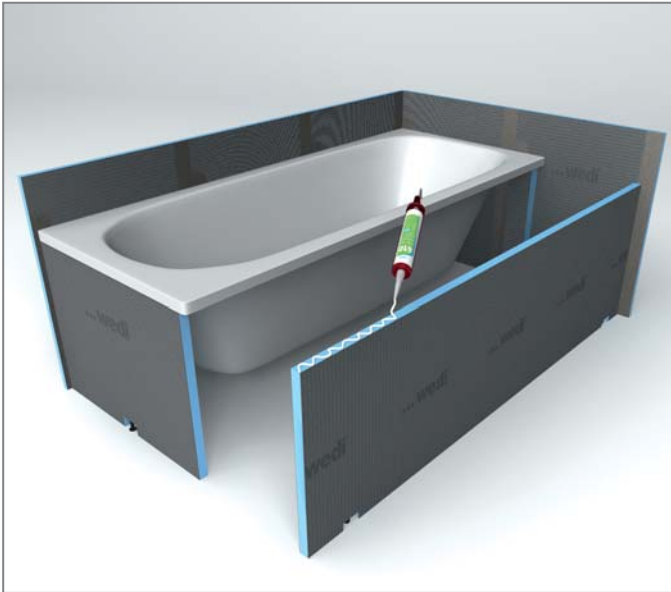


5 Finally, mark the reinforcement board e.g. with a centrally positioned screw.

Please note:

Reinforcement boards = multi-layer boards such as textured coated boards.

wedi *Bathboard* | Bathtub cladding



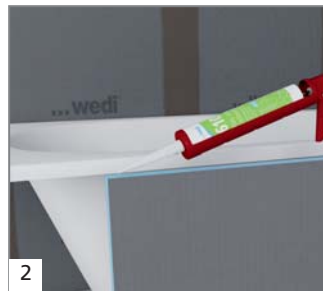
The wedi Bathboard cladding – made of the 20 mm wedi building board – has sparked something of a revolution in the cladding of bathtubs and showering trays. Height variations of up to 10 cm in rough concrete or screeding can be compensated for during installation using height-adjustable feet. Installing a control framework is not mandatory.

wedi system components:

- wedi *Bathboard* head part, longitudinal part
- wedi *Tools* reinforcement tape
- wedi *Tools* sealing tape
- wedi 610 adhesive sealant



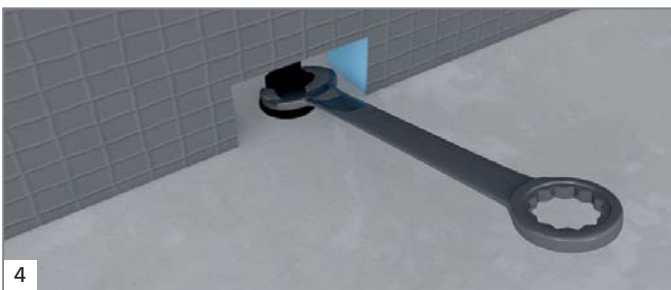
1 Fit the support in the wall area.



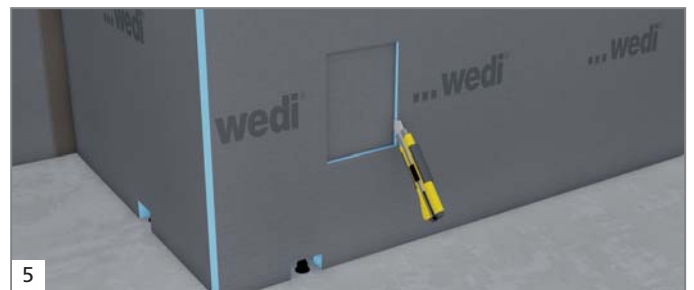
2 Apply wedi 610 adhesive sealant along the top edges of the building boards.



3 Sit the elements under the edges of the bathtub and make the necessary adjustments.



4 Adjust the height of the feet using an open-jawed spanner (size 17) or pipe wrench so that the wedi bathboard sits securely under the edge of the bathtub.



5 Assembly is also possible without an inspection window. If required, an inspection opening can be created at any time.

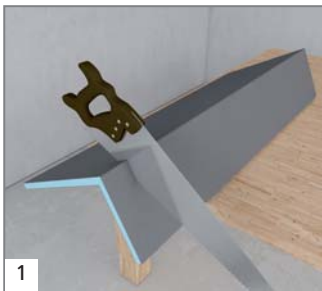
wedi *Mensolo-L / -U* | Pipe covering



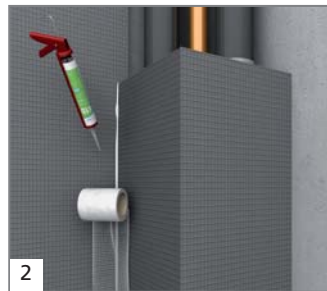
Boxing in pipes using conventional materials takes time, creates mess and rarely creates an ideal substrate for tiling. This task can be done quickly and cleanly using wedi Mensolo angle units.

wedi system components:

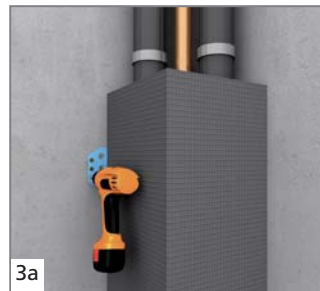
- wedi *Mensolo-L/-U*
- wedi *Tools* connector wall
- wedi *Tools* sealing tape
- wedi *Tools* self-adhesive reinforcement tape
- wedi 610 adhesive sealant



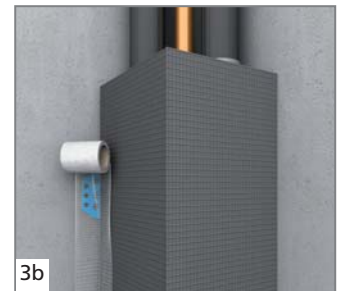
1 Cut the L-shaped wedi Mensolo angle unit to the required length.



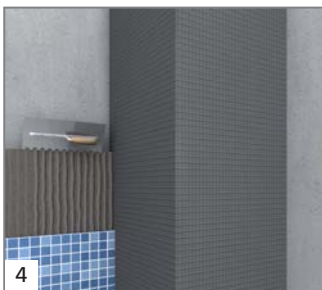
2 Affix the L-shaped wedi Mensolo angle unit to the wall with wedi 610 adhesive and sealant. Provide the corner joint with self-adhesive wedi *Tools* reinforcement tape.



3a Alternatively, screw it to the wall using wedi *Tools* connectors and screws.

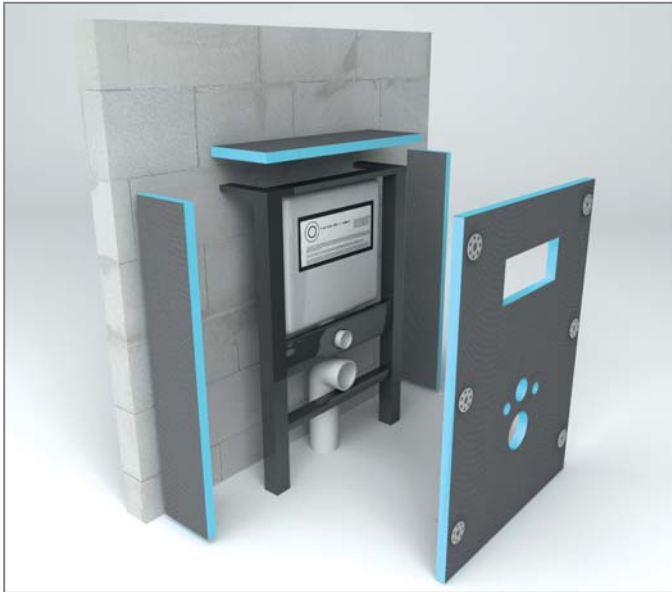


3b Provide the corner joint with self-adhesive wedi *Tools* reinforcement tape.



4 The tiling or plastering can then be carried out.

wedi *I-Board* | WC drywall installation (mechanical fixing method)

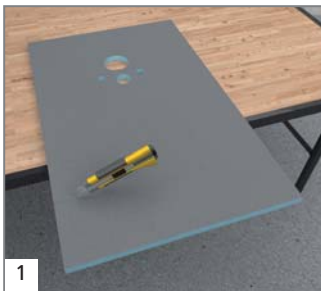


wedi I-Board (1200 x 1245 x 20 mm) is a prefabricated fitting element for cladding of wall-mounted WCs. With a width of 1,200 mm, it can easily be adapted to virtually all specific needs. Despite its light weight, it is extremely strong and stable (up to 400 kg from a tile size of 10 x 10 cm). The installation cladding board can be tiled directly after fitting without further pre-treatment.



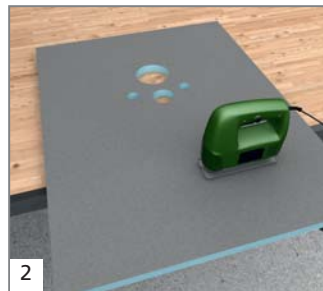
wedi system components:

- wedi *I-Board*
- wedi *Tools* washers
- wedi *Tools* sealing tape



1

First cut the wedi I-Board to the required size with a utility knife.



2

Using a jigsaw, cut out a suitable opening for the flush actuator.



3

The prepared and cut I-board is mechanically attached to the dry wall installation using the supplied rapid fit screws in conjunction with the washers.



4

Now attach the previously cut strips of wedi I-Board to the top and sides with wedi 610 adhesive sealant.



5

Apply self-adhesive wedi *Tools* reinforcement tape to the joints and connection areas.



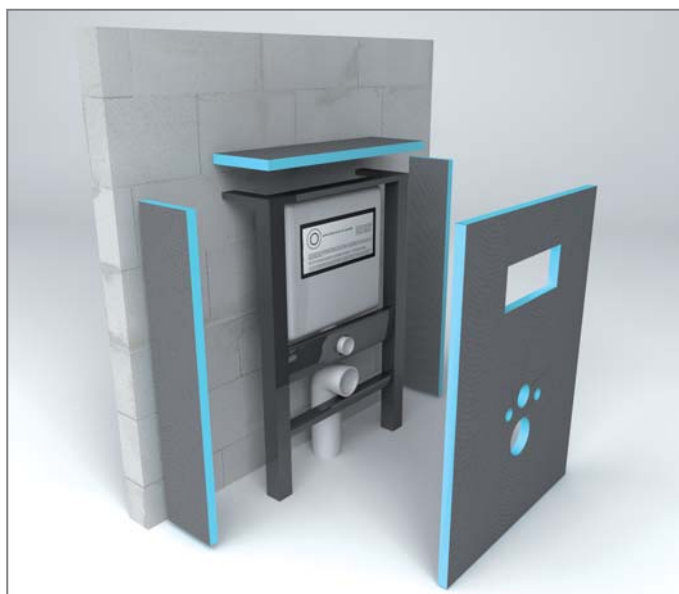
6

The wedi I-Board can be tiled directly after reinforcement without further pre-treatment. The joints between the wall covering and the flooring and the corner joints of the wall covering should be formed as expansion joints.



7

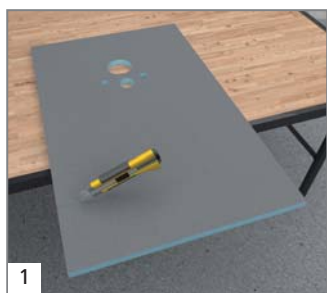
wedi I-Board | WC drywall installation (adhesive bonded)



wedi I-Board (1200 x 1245 x 20 mm) is a prefabricated fitting element for cladding of wall-mounted WCs. With a width of 1,200 mm, it can easily be adapted to virtually all specific needs. Despite its light weight, it is extremely strong and stable (up to 400 kg from a tile size of 10 x 10 cm). The installation cladding board can be tiled directly after fitting without further pre-treatment.

wedi system components:

- wedi I-Board
- wedi 610 adhesive sealant
- wedi Tools reinforcement tape



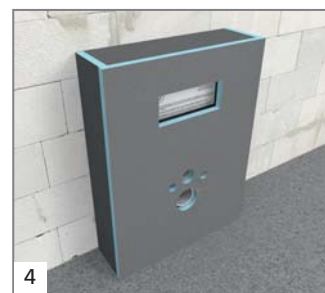
1 First cut the wedi I-Board to the required size with a utility knife.



2 Using a jigsaw, cut out a suitable opening for the flush control.



3 Attach the wedi I-Board on the framework using wedi 610 adhesive sealant.



4 Now attach the previously cut strips of wedi I-Board to the top and sides with wedi 610 adhesive sealant.



5 Apply self-adhesive wedi Tools reinforcement tape to the joints and connection areas.



6 The wedi I-Board can be tiled directly after reinforcement without further pre-treatment. The joints between the wall covering and the flooring and the corner joints of the wall covering should be formed as expansion joints.



Individual bathroom furniture



When you start to consider the possibilities for individual design, it soon becomes clear that wedi building boards can be used for much more than just a substrate for walls and floors. The building boards with thicknesses of 30, 40, 50, 60 and 80 mm are perfectly suited for building tileable bathroom furniture. There are no limits to your creativity, whether you are making wash-stand basins, benches, shelves or storage surfaces. The method of use remains straightforward and easy.

wedi system components:

- wedi building board
- wedi *Tools* connector 90°
- wedi 610 adhesive sealant
- wedi *Tools* self-adhesive reinforcement tape
- wedi *Tools* sealing tape



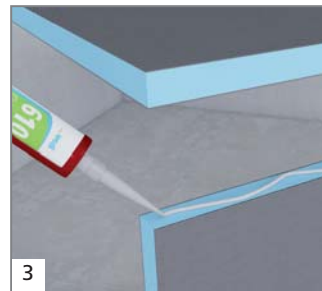
1

Cut the wedi building board to the desired dimensions for the individually designed bathroom furniture.



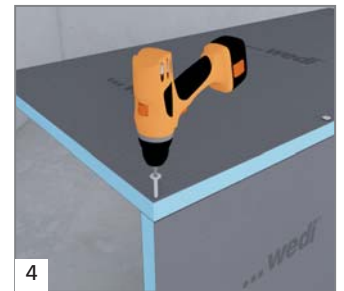
2

Cut recesses and inspection opening into the building board (tapered cuts), if required.



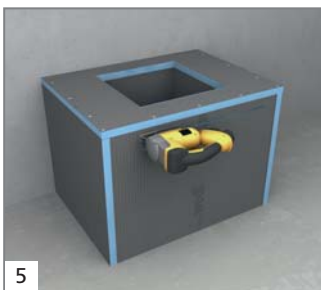
3

Bond the cut building boards by using wedi 610 adhesive sealant ...



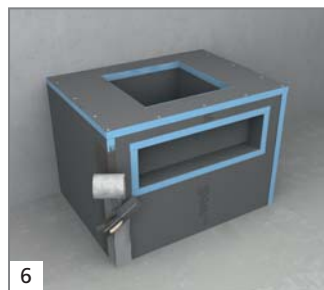
4

... and additionally fasten with self-tapping screws to secure the elements in place during drying of the adhesive. This step can be directly followed by further work.



5

In the following, additional recesses, e.g. for niches, can be cut into the body if required.



6

Apply wedi *Tools* reinforcement tape at joints and edges using tile adhesive, or apply self-adhesive wedi *Tools* reinforcement tape.

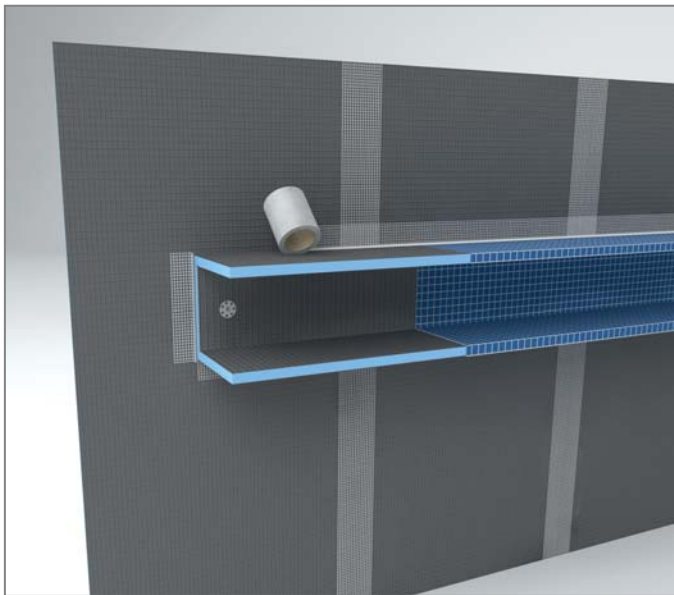


7

Individual tiling of the bathroom furniture designed with the building board.



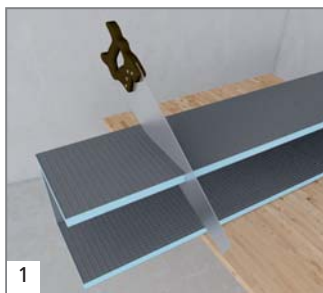
Shelves



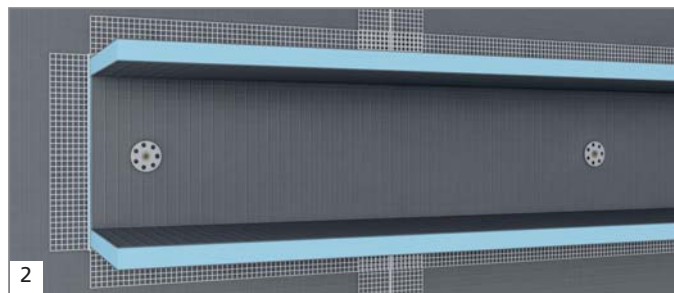
The ready-to-use element wedi Mensolo-U – made of the building board as base material – allows for fast and easy creation of individual shelves with a variety surfaces. These shelves, if tiled, can bear a load of approx. 100 kg over a length of 250 cm.

 **wedi system components:**

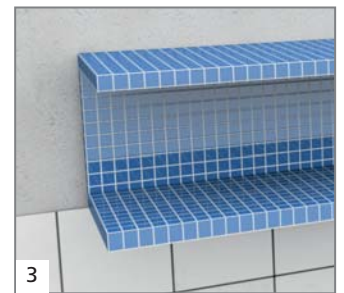
- wedi *Mensolo-U*
- wedi 610 adhesive sealant
- wedi *Tools* washers
- wedi *Tools* self-adhesive reinforcement tape
- wedi *Tools* metal dowel



1 Simply cut the U-shaped, pre-fabricated wedi Mensolo unit to the required length, e.g. for creating shelves.

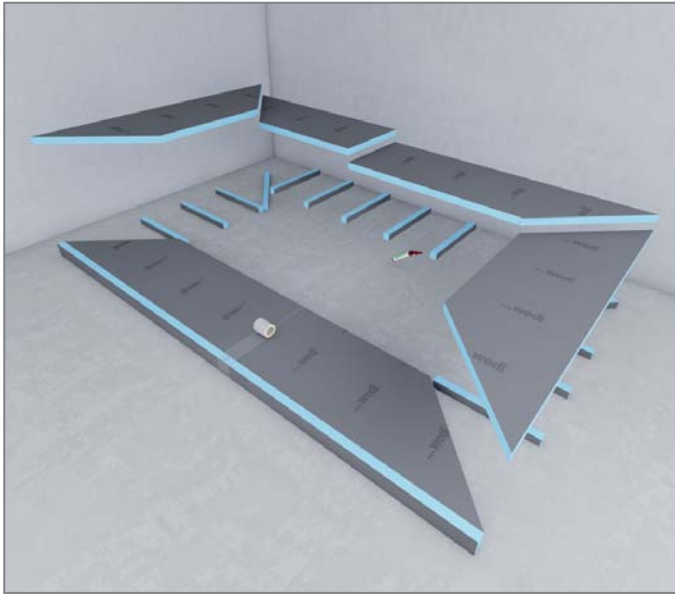


2 Affix the angle unit to the wall with wedi 610 adhesive sealant or alternatively with tile adhesive. Then fix it securely in place with mechanical fixings and cover the joints with self-adhesive reinforcement tape.



3 After tiling the customised shelf is complete and ready to use.

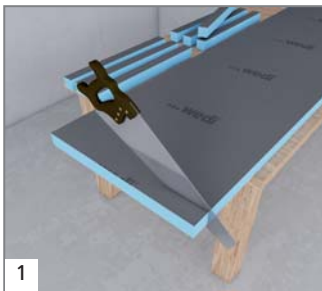
Steps and platforms



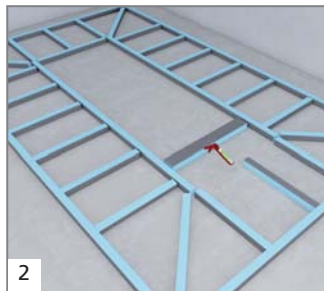
The wedi building board can also be used for creation of steps and platforms in domestic applications only. After cutting and installation the wedi building board can be finished with any tile based surface covering (min tile dimensions 10 x 10 cm).

wedi system components:

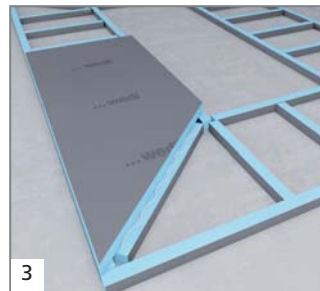
- wedi building board from 50 mm
- wedi 610 adhesive sealant
- wedi *Tools* self-adhesive reinforcement tape



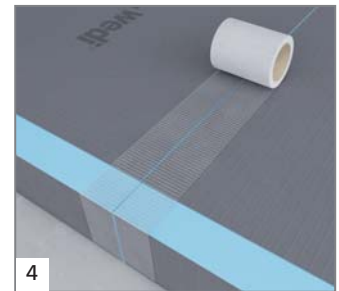
1 Cut wedi building board to size for creation of the platform struts.



2 Apply wedi 610 adhesive sealant to the surface edges, set a maximum distance apart of 40cm.

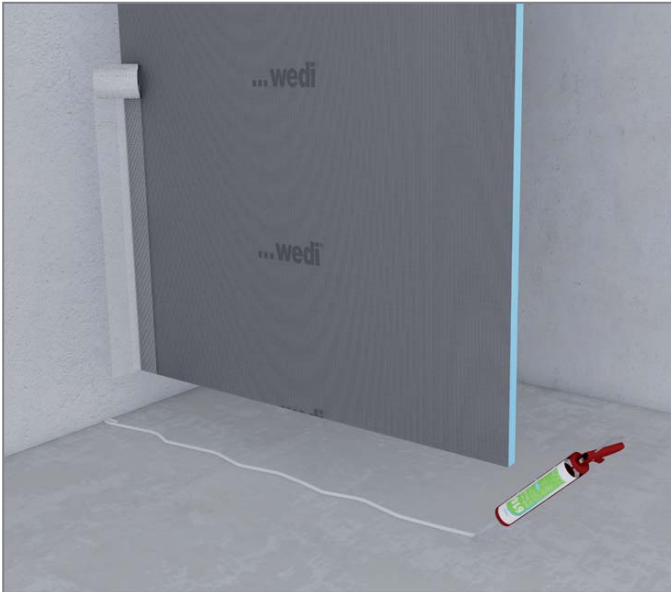


3 Affix building board as cover onto the platform struts using wedi 610 adhesive sealant. Board joints must always be supported and correspond to a strut beneath.



4 Apply self-adhesive wedi *Tools* reinforcement tape to all joints.

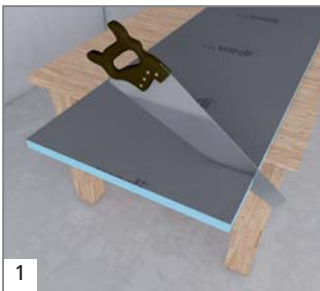
Partition walls



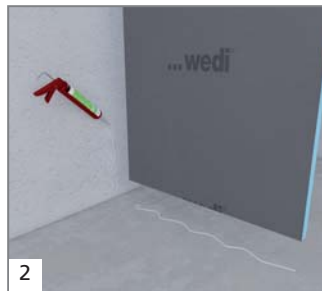
When using the wedi building board for partition walls, this offers the possibility to separate rooms. Installation is easy and fast, and the design is virtually unlimited due to the huge variety of possible finishes.

wedi system components:

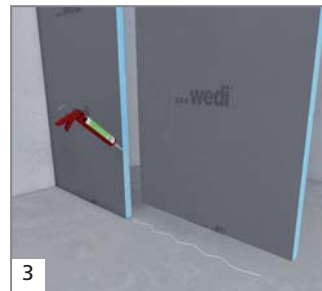
- wedi building board XL, XXL
- wedi 610 adhesive sealant
- wedi *Tools* sealing tape
- wedi *Tools* self-adhesive reinforcement tape



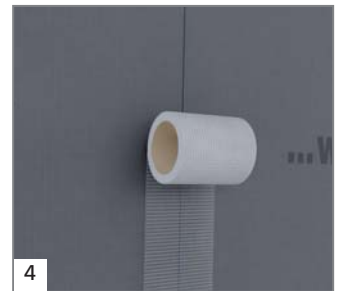
1
Cut the wedi building board to the desired size. wedi building boards from thickness of 50 mm are suited for walls.



2
Affix the wedi building board to the wall or floor by using wedi 610 adhesive sealant.



3
Further building board elements are affixed to each other and to the floor by using wedi 610 adhesive sealant. The maximum wall length is 1200 mm.



4
Apply self-adhesive wedi *Tools* reinforcement tape to the joints between the building boards. Installation of doors requires previous installation of reinforcement panels.

Individual shapes



The wedi Construct building board opens up any possibility in the design of curved shapes. Whether you wish to achieve tight radii or semicircular solutions, the Construct building board grants you plenty of scope to develop your ideas for virtually all applications. Since Construct building boards exhibit the usual high quality in terms of moisture protection and thermal insulation, irrespective of their shape, sustained high technical standards are guaranteed, along with room to allow you to explore your creative side.

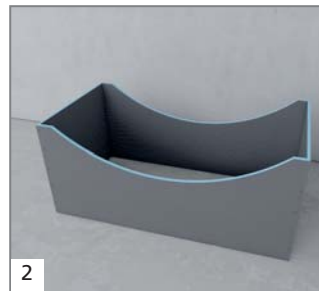


wedi system components:

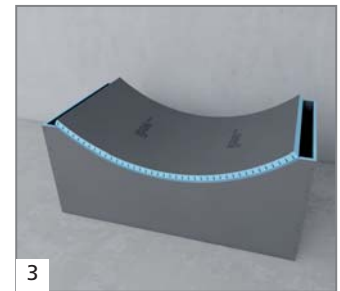
- wedi building board *Construct*
- wedi *Tools* reinforcement tape 600 mm



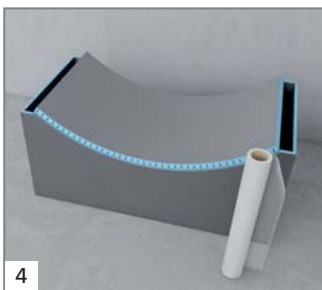
Pre-cut wedi Construct building boards come in longitudinal and transverse cut designs.



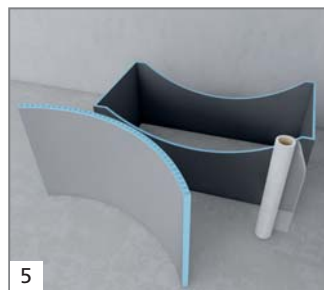
To shape the building board according to your wishes, you should first create a type of template, e.g. out of wood or wedi building board.



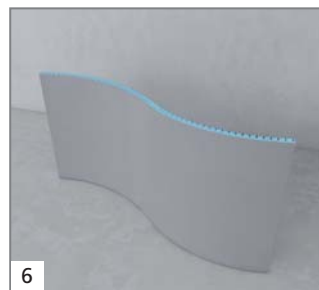
Then place the wedi Construct building board flush along the structure, with the incisions facing inwards ...



... and apply wedi *Tools* reinforcement tape and tile adhesive.



Once it has dried, the building board will be set in the intended shape and can then be processed further as normal or however you wish.



A wide range of other shapes are possible using the wedi Construct building board. All you need is a template shaped to suit your wishes.

Freestanding wall systems



With the modular wedi Moltoromo system, versatile wall configurations can be created effectively for different bathroom and wellness applications. Round shapes, angled solutions or curved lines, for example, can be installed quickly and easily.

wedi system components:

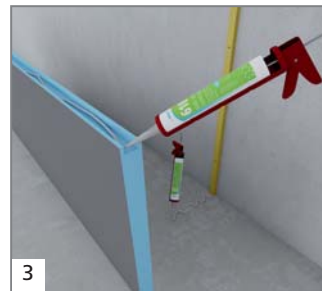
- wedi *Moltoromo* wall segment
- wedi *Moltoromo* installation set
- wedi *Moltoromo* wall/door fixing set
- wedi 610 adhesive sealant
- wedi *Tools* self-adhesive reinforcement tape



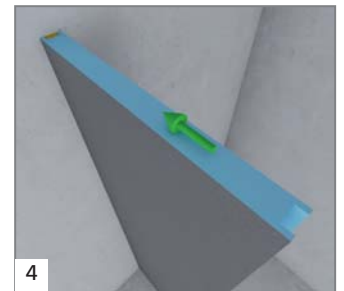
1 Pre-drill the holes for the mechanical fixings (diameter: 6 mm).



2 For connection to the wall, vertically attach the wall and door fixingset by using mechanical fixings.



3 If a door is to be fastened, wedi 610 adhesive sealant is applied onto the wall and door fixing set ...



4 ... and then the wall and door fixing set is bonded and reinforced with wedi *Tools* reinforcement tape.



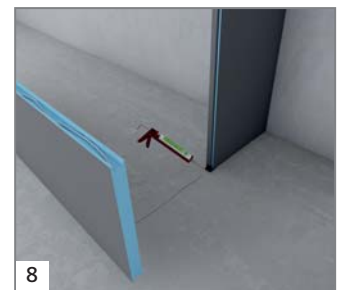
5 An installation block is inserted on the floor to stabilise the Moltoromo wall elements. The installation block is positioned in the specified groove in the wall element.



6 Before installing the tongue, an evenly applied layer of wedi 610 adhesive sealant is applied in the groove.

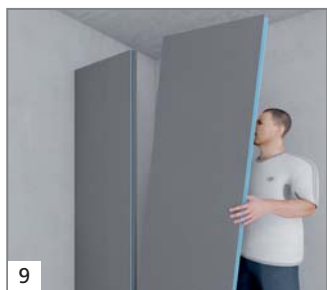


7 Connection of two Moltoromo wall elements makes it necessary to insert the tongue into the groove before the glue has cured. In such case, the bottom of the tongue rests on the installation block.

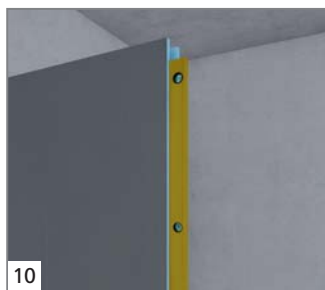


8 To mount the following elements on the already installed tongue, their grooves should also be coated with wedi 610 adhesive sealant first.

Continuation of installation steps



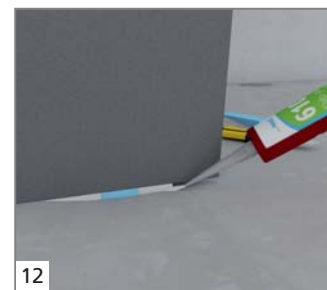
9
Bond adjacent element to the wall element.



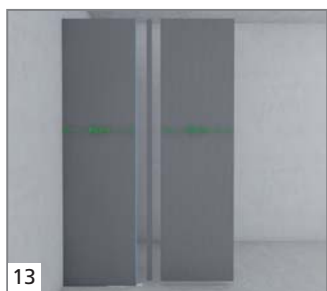
10
Check vertical position and alignment of the wall elements by using a spirit level.



11
Use slope wedges to compensate floor irregularities or slopes e.g. with Fundo floor elements. Slope wedges can be easily cut to the required size by using a knife.



12
Close the open joint by using wedi 610 adhesive sealant.



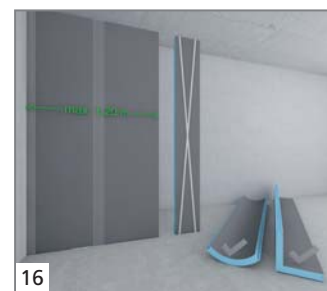
13
Further wall elements can be installed individually using the same principle (steps 5 – 10).



14
Before tiling, joints between boards are covered with self-adhesive wedi Tools reinforcement tape.



15
The straight wall created by the wall and follow-on element may not be more than 1.20 m long.



16
Then, direction should be changed by using an angular or round wall element.



17
Place the next element, e.g. a supply element.











18
Finally, the Moltoromo wall elements can be individually tiled.



19
Fittings etc. can be attached onto or into the wall elements with supply well.



-  wedi building board systems
-  wedi floor-level showers
-  wedi design elements
-  wedi sealing and decoupling

-  wedi wellness projects
-  wedi system chemistry
-  wedi practical auxiliaries
-  wedi support



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