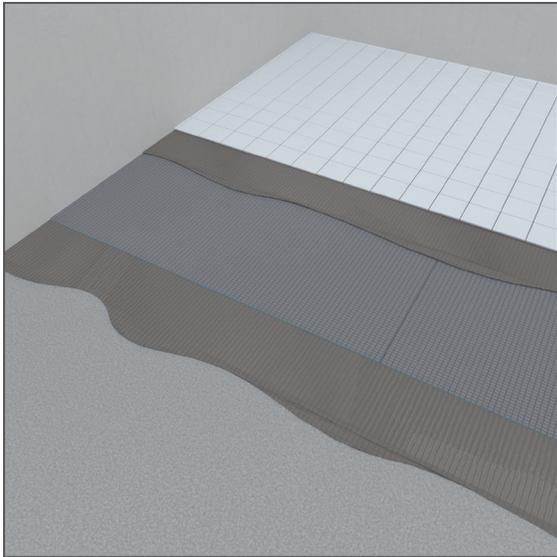




Over structural floors and with Floor Heating Systems

wedi Building Panels are ideal for use beneath floor heating systems whether you have a warm water heating or an electrical floor warming or heating system. The panel's insulation properties isolate the heat from the substrate and guide it straight into the room which then saves energy and reduces warm-up time, as well as supports equal distribution of warmth.

Electric floor heating systems can be installed as per manufacturer's instructions onto already installed wedi Systems and underlayments (i.e. wedi Building Panels, Fundo floor elements, Sanoasa benches, Sanoasa loungers). In wet areas, only products approved for such individual application and areas, such as showers, should be used.



Installation of Electric Floor Warming Systems

The wedi Building Panels save time and money while conserving energy when used in conjunction with any common electric floor heating system. The extruded polystyrene foam core construction makes the system 100% waterproof and the perfect heat insulator and thermal barrier. wedi Building Panels are equipped with a cement resin surface that is reinforced with a fiberglass mesh and provides an ideal bond to any common tile adhesive or selfleveling product which may be needed to integrate an electric cable or mat system.

wedi installation requirements:

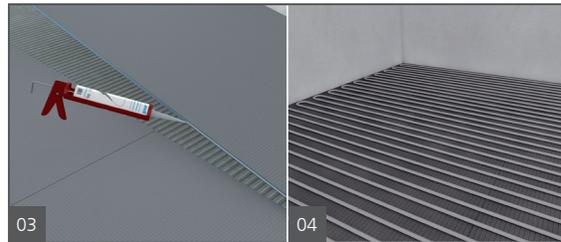
see page 23 – 27



01 Make sure the concrete floor is even, fully cured and free of debris, oil or waxes. The wedi Building Panels are installed using modified thinset mortar using a 1/4" x 1/4" (6.4 x 6.4 mm) notch trowel.

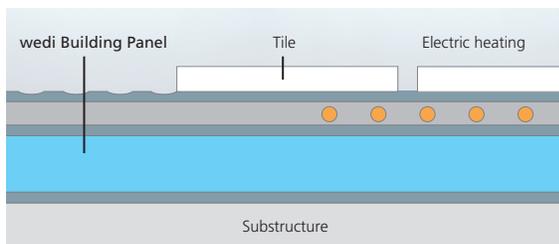


02 Stagger all joints when laying wedi Building Panels on the floor. Apply some weight on the boards during initial thinset setting time and especially over board transitions.



03 wedi Joint Sealant can be applied with a continuous 1/4" (6.4 mm) bead while setting the panels in position (seams butted tightly) or after they are set and with the bead of sealant installed over the seam before it is spread flat using a putty knife. All excess sealant must be spread flat so joint sealant covers the seams at least 1/2" (12.7 mm) to 3/4" (19 mm) on either side of the seam. In dry areas, wedi selfadhesive alkali resistant mesh tape can be used to reinforce the seams.

Install electric floor warming system according to manufacturer's recommendations. Please make sure the wedi Building Panels are not punctured by staples or other mounting devices.



Electric under floor heating systems are easy to mount on the wedi Building Panel and downward heat loss is prevented, making the heating system noticeably more effective.

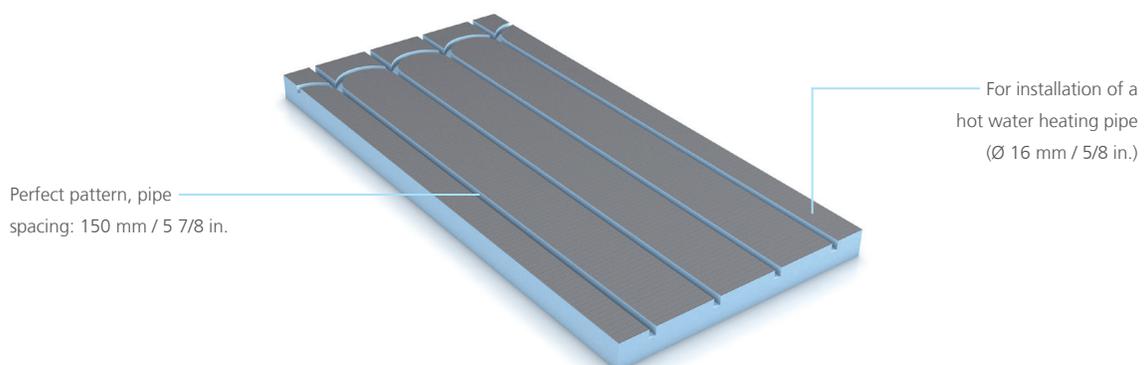
Note on electric floor warming systems

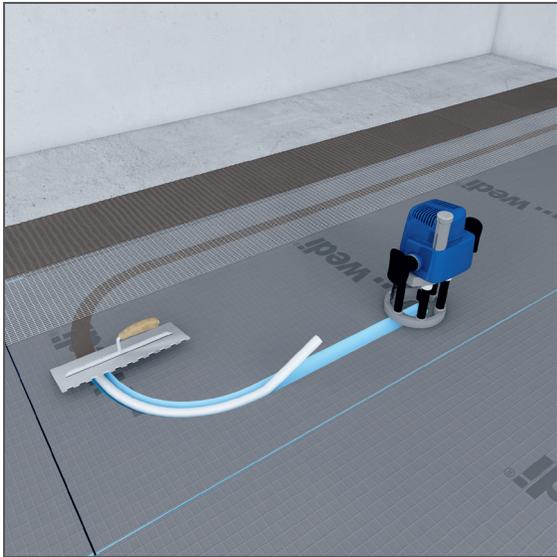
Electric floor heating systems can be installed as per manufacturer's instructions onto already installed wedi product system or underlayment surfaces and reinforced elements (e.g. wedi Building Panels, Fundo floor elements, Sanoasa benches, Sanoasa loungers). Here only products approved for such individual application and areas such as i.e. wet rooms should be used.



wedi Preline- Building Panel with premade channels for hydronic floor warming

The wedi building panel PreLine is a fully prepared building panel element for easy installation of hot water heating systems. Factory integrated recesses allow for quick and safe installation of water pipes whilst strong insulation properties of the material itself prevent heat escaping to the ground thus promote a balanced heat distribution across the entire space. Adhesion of the wedi PreLine elements to the screed floor and backfilling of the pipe ducts is done very simply with the appropriate tile adhesive (recommendation: modified thinset mortar). It truly is the perfect element for quick and waterproof implementation of underfloor heating systems.

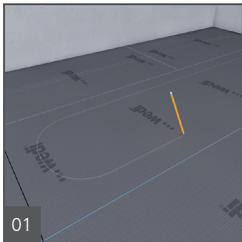




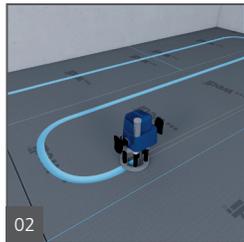
Installation of Hydronic/Water heating systems

wedi Building Panels are ideally suited for use beneath floor and even wall warming systems. The wedi Building Panels good insulation properties keep the heat away from the ground and reflect it back up in to the room, regardless of whether you have a hot-water heating system or an electric system. wedi Building Panels save energy and provide shorter warm-up times around your heating system. The warmth is evenly distributed across the entire floor.

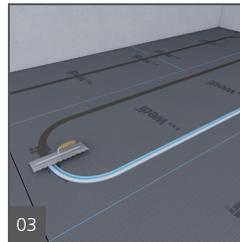
You can also use wedi building panel and customize channels for hydronic tubes. Choose the appropriate thickness adding a minimum of 3/8 in. to the diameter of the tubes or pipe for insulation you want to always keep strong enough below the channels (add for any connector fittings that may require deeper channels).



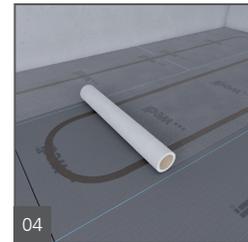
01 Draw ducts/grooves onto the wedi Building Panel for installation of the heating system.



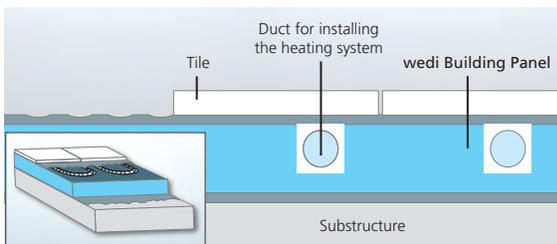
02 Cut grooves using a router. Cutting width should be the same as the pipe width; cutting depth should be at least 1/8" (3.2 mm) deeper. Make sure at minimum a remaining wedi Building Panel foam thickness of 1/4" (6.4 mm) remains intact below the pipe.



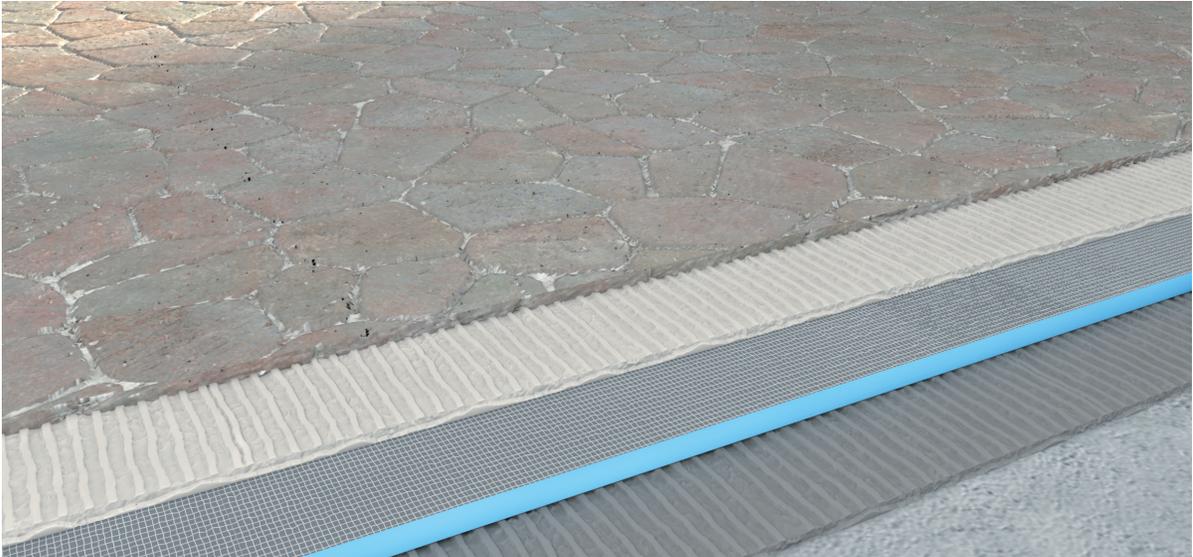
03 Install tubing into the groove. Fill tile adhesive into the pipe duct to cover pipe and fill voids.



04 Apply wedi's wide self adhesive reinforcement tape over the installed ducts. You can then start tiling. Tiles smaller than 4 x 4" (101.6 x 101.6 mm) should not be used over hydronic system installation surfaces.

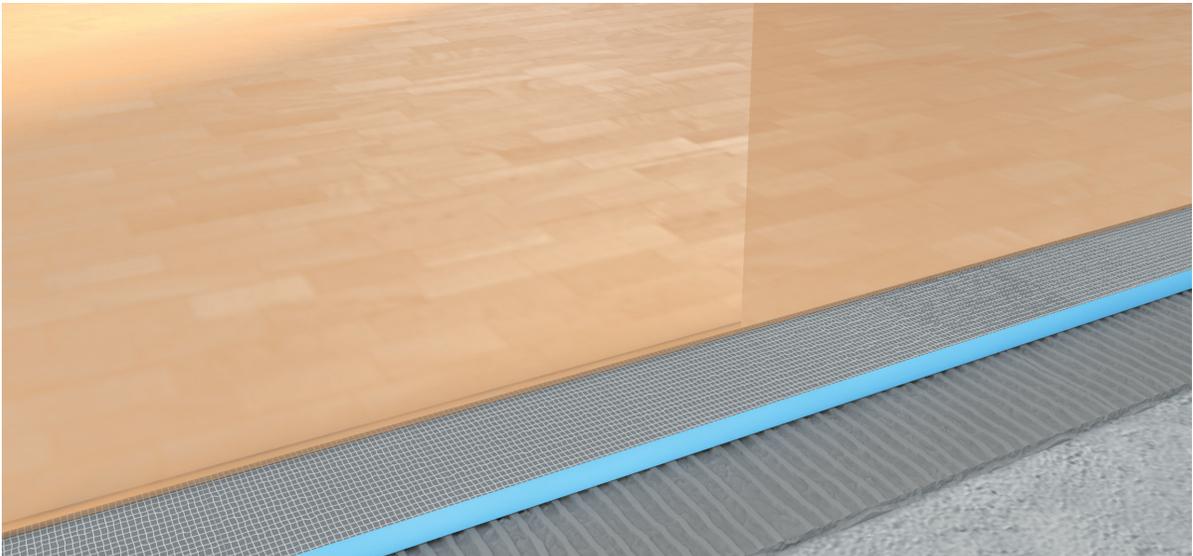


For hot-water systems, ducts can be cut into the building panel and other wedi elements quickly and easily. The wedi Building Panel serves as a combined form of heat insulation and a base for installation of tile and serves as waterproofing protection if needed.



On Floors: wedi under Ceramic and Stone Tile Coverings

Virtually all mosaic and larger or thin tile formats, such as dimension stone or thin porcelain tile, can be installed over wedi Building Panels, which are an ideal carrier element and allow for easy and fast installation. Natural stone is also properly supported and cannot transfer soluble salts causing efflorescence due to the impervious nature of the wedi substrate, separating it from concrete subfloors. Please contact wedi for suitable tile choice and formats for use in various types of installations, such as residential or commercial.



Alternative Floor Coverings: wedi under Laminates and Ready-to-Lay Parquets

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

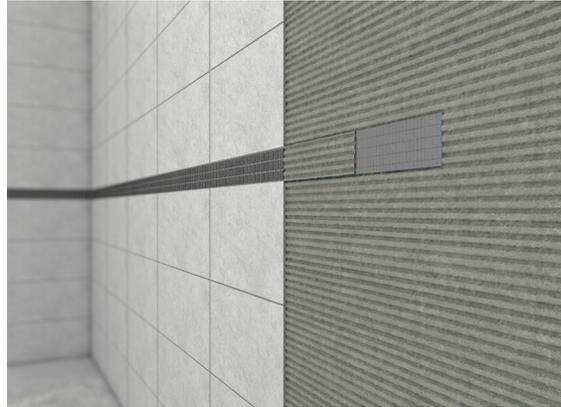
i Contact wedi for best practice installation methods or substrate requirements when using specialty surface coverings.

Wall Surface Coverings Installation Possibilities over wedi Building Panel



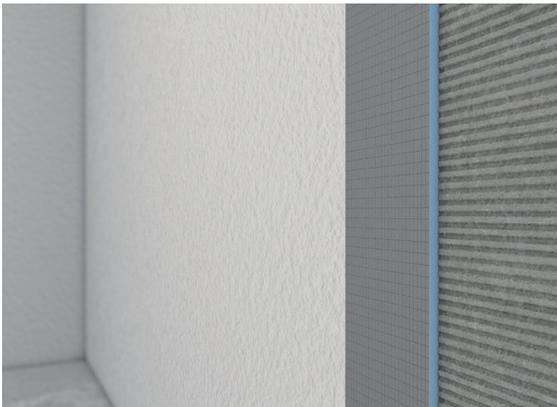
Ceramic, Stone and Glass Coverings

Ceramic coverings offer various possibilities for wall and floor design. Depending on the intended use and personal taste, there is a wide variety of tile in different shapes, colors and materials. Here, the wedi Building Panel is the perfect carrier element for ceramic coverings as the tile can be installed directly to the board surface without any additional steps needed. There are no limitations concerning setting adhesives or grouts. All types of ceramic, porcelain, stone or glass can be used with wedi Building Panels. The surface is even and consistent, which works perfectly for mosaic as well as large format or thin body tile.



Mosaic accent strips

wedi's 1/8" (3.2 mm) Building Panel can be used to perfectly install mosaic accent strips into a large format wall tile assembly. This helps avoiding excessive mortar build-up and leveling when trying to evenly align the field tile with the much thinner mosaic tile strip. The strips of wedi Building Panel could even be pre-tiled in the shop and simply adhered into the wall assembly on site, using thinset mortar applied to the back of the strip only.

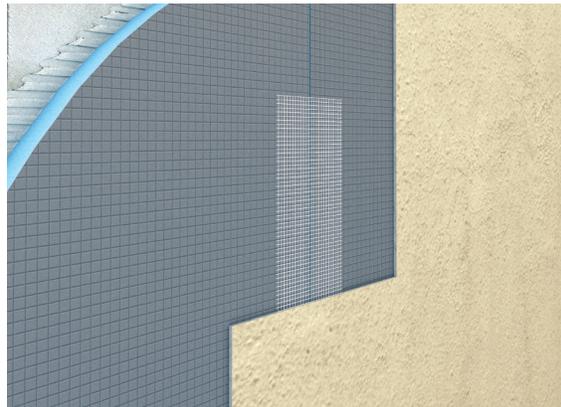


Plasters and fillers

Today, plasters and stucco are not only used for the creation of a plane surface for tiling, painting or wallpapering, but they also represent a visual design element. This is another instance where the wedi Building Panel is the perfect substructure.

Important information:

Contact your wedi Technical Support Sales Manager for advice on areas with shock loads. Plasters containing gypsum require priming of the wedi Building Panel.



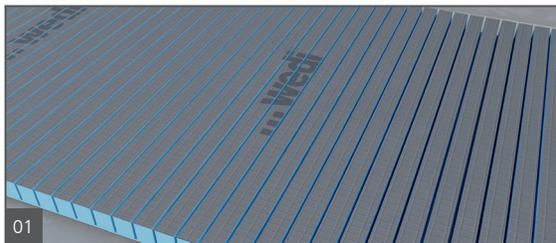
Wall paints

The unique wedi Building Panel is also suitable for paint application. However, a sufficient layer of plaster or stucco must be applied to cover-up the mesh grid structure providing a smooth surface on the wedi Building Panel, upon which paint can be applied. Whether in living areas or in the bedroom – the design options are abundant and the room will always be pleasantly insulated. Before applying gypsum/plaster based joint compounds over seams or corner beads, the wedi Building Panel must be primed to allow gypsum based material to safely adhere.

i Contact wedi for best practice installation methods or substrate requirements when using specialty surface coverings.

Constructing Individual Bathroom Furniture

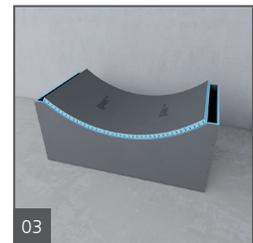
wedi Building Panels open endless possibilities in the design of circular and other shapes. Whether you wish to achieve tight curves or semicircular solutions, the wedi Building Panel grants you plenty of scope to develop your ideas for virtually all applications. Since wedi Building Panels offer exceptional moisture protection and heat insulation, you can be assured your installations are guaranteed to meet the highest quality standards, no matter the shape and size you choose to create. Below is just one example how to shape the wedi Building Panel.



Create a series of cuts into the wedi Building Panels 1/2" the thickness of the panel deep. The distance between cuts depends on the tightness of the radius needed later. Use a circular saw for these cuts.



To shape the wedi Building Panel according to your idea, you may first want to create a type of template, e.g. out of wood.



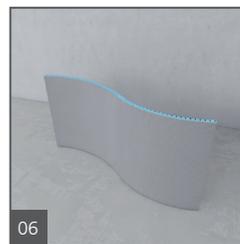
Place the wedi Building Panel flush along the structure, with the incisions facing upwards...



... and apply wedi Self Adhesive Mesh Tape followed by a flat application of thinset mortar.



Once the thinset mortar has set, the shaped wedi Building Panel can be moved into its intended final position or application.

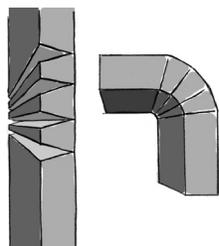


A wide range of other shapes are possible using the wedi Building Panel. All you need is a template shaped to suit your needs. A template may not be needed for simpler shaping.

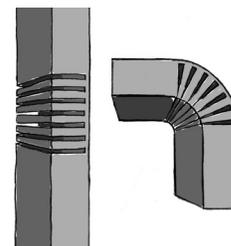
Important:

We recommend to waterproof over cut wedi Building Panels in wet areas as the panels are cut to bend properly, but may break through the foam in handling.

Tools and Methods to cut wedi Building Panels into flexible shapes – curved bench styles



Cut the wedi Building Panel using a utility knife and straight edge. This way wave shape constructions can be produced. For a small radius – cut out wedges from the building panel or...

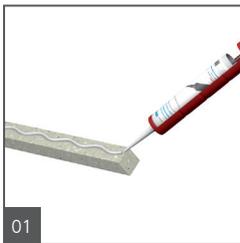


... cut the wedi Building Panel using a hand-held circular saw and bend it into a curve.



How to install suspended triangle seats (Prefabricated and field fabricated)

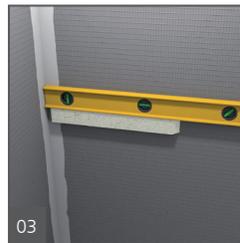
Triangles made from wedi 2" (50.8 mm) Building panel may be used to construct and install tile ready, suspended corner seats. The wedi Building Panels may be single sheets or doubled up to 4" (101.6 mm) or more by adhering several triangle cut wedi 2" (50.8 mm) Building Panels using full contact application of a minimum 1/4" x 1/4" (6.4 x 6.4 mm) square troweled bed of modified thinset mortar or wedi Joint Sealant equally applied to the surface in 1/2" (12.7 mm) thick beads. The triangle seats are then sealed and adhered against wedi wall Building Panels using wedi Joint Sealant applied in 1/2" (12.7 mm) beads equally distributed over the contact surface. The seats should be pressed into position giving it no more than 1/8" (3.2 mm) of a slope to the front. The seats have to be kept under compression against walls for at least 20 minutes. More joint sealant is then applied in 1/2" (12.7 mm) beads over all seams top and bottom of the seat and troweled flat using a putty knife. Once the joint sealant has developed a skin after appr. 20 – 30 minutes, wedi mesh tape is finally applied in modified thinset mortar over these seams. The seat is now ready for tiling. Please note that the maximum seat size in this shape is limited to 18" seat length at both connecting (90° corner-) walls. Such field constructed triangle seats are approved for live and dead load of 250 lbs centered on the seat. Below you can see the installation of wedi's prefabricated triangle seats. They are designed to withstand a weight of up to 350 lbs centered on the seat.



01 Apply wedi Joint Sealant to the side of the mounting bracket that will be attached to the wedi Building Panel wall.



02 Evenly distribute wedi Joint Sealant with a putty knife until the whole contact area is covered.



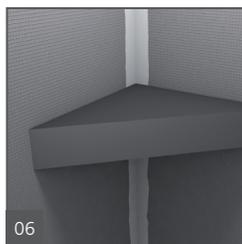
03 Using a level, make sure you can achieve a slight 1/8" (3.2 mm) V 1 ft. (304.8 mm) pitch for the bench. You may slightly pitch the brackets or install these level and use wedi Joint Sealant as a wet shim.



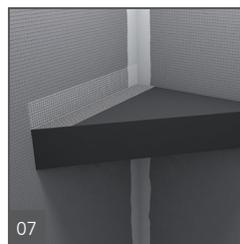
04 Mount the brackets through the wedi Building Panel wall into the solid 2 x 4 wooden framework.



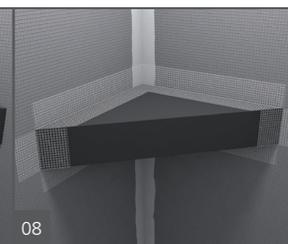
05 Using a putty knife, apply wedi Joint Sealant to the blue foam edges of the seat that will contact the wedi Building Panel wall and brackets.



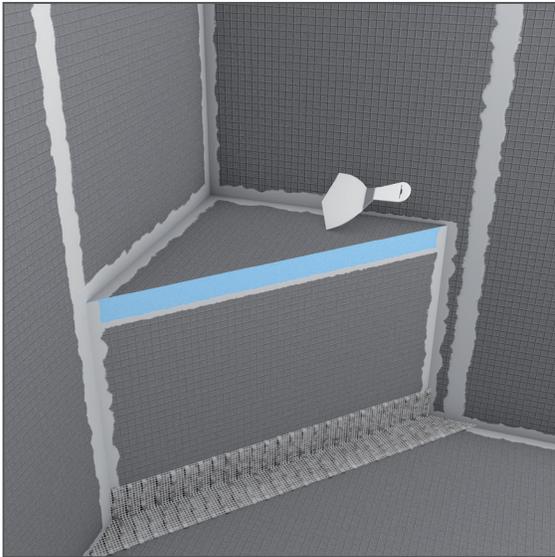
06 Press the seat element into position and apply a weight (i.e., tile box) so the sealant can set under bond pressure.



07 Apply wedi mesh tape to the transition joint between the seat element and the wedi Building Panel wall, seal off all seams to the wall using wedi Joint Sealant. Next, install wedi mesh tape over all transitions to the wall and cover with thinset mortar.

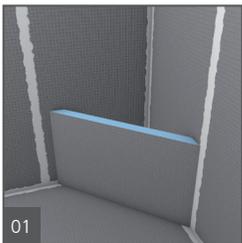


08 Apply Step 7 now to the underside of the seat element. Apply mesh tape and thinset mortar to the vertical seams as well.

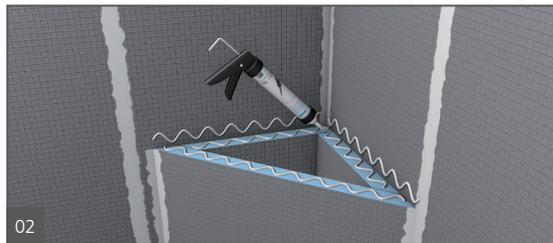


Building Custom Seats and Benches Using 1 1/2" (38.1 mm) or 2" (50.8 mm) thick wedi Building Panels

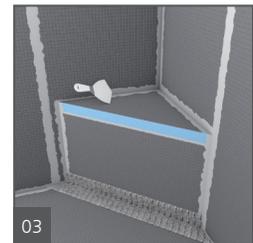
wedi offers prefabricated suspended or wall mounted seats and floor standing seats. Both may also be constructed on-site using wedi Building Panels. This is an ideal option that will perfectly accommodate your individual tile and design layout.



Measure and cut the bench pieces off a wedi 2" (50.8 mm) thick wedi Building Panel and dry fit. When installing a corner seat, the panel edges are mitered for a tight fit. To achieve a slope, the part's upper ends are cut down with a slight angle towards the front of the bench. Optionally, create a pitch using wedi Joint Sealant as a "wet shim". The wedi parts are adhered to the wall using thinset mortar or wedi Joint Sealant. Adjoining parts



are glued together using wedi Joint Sealant continuously applied along all foam edges of a panel part. Excess is spread flat over the seams using a putty knife. Where the part's backs meet the wedi wall, modified thinset mortar is used in a full contact surface bed. Once the bench is built, a final bead of wedi Joint Sealant is applied to safely seal all seams to the wedi wall. The vertical front part of the bench will show a small gap to the pitched floor. Fill with thinset mortar and alkali resistant fiberglass mesh tape by wedi, applied over this seam. Alternatively, benches and seats are offered as prefabricated units made by wedi. For longer or larger benches built from our 2" (50.8 mm) building panel, always install one spacer/support made of wedi 2" (50.8 mm) Building Panel every 18" (457 mm) in either direction. Over blue exposed foam edges, adhere a wedi Building Panel strip to foam using wedi Joint Sealant. This will create a cement based surface to adhere tile to it. Optionally, the blue foam may be covered with wedi Joint Sealant. The covering of the blue foam



areas is not necessary, where tile is used that will overlap and cover the blue area with no more than 50% of its size. Such larger tile is thinset adhered to seat including the foam surface.

The maximum weight allowance on seats or benches built with vertical supports placed every 18" (457 mm) o.c. is 500 lbs (227 kg).





wedi Building Panel for Countertops and Backsplashes

The wide variety of sizes and thickness ranges with wedi Building Panels are ideal for several applications in kitchens: Behind backsplashes over framing or solid surface, on countertops over cabinets and eliminating the customary plywood sheet. The flatness and rigidity of the wedi Building Panel surface make installation of special tiles much better and safer: with thin and/ or large tile, mosaics, natural stone slabs or composite materials like quartz. Especially when high rise building projects allow for repeating installation formats, the lightweight wedi Building Panels can often be pre-tiled and installed on the job in one step. The range of wedi Building Panels used here is from panels as thin as 1/8" (3.2 mm) to 1 1/2" (38.1 mm) or 2" (50.8 mm).

Installation of Large Format Thin Porcelain Tile Over Countertops



01 Apply a continuous 1/2" (12.7 mm) thick bead of wedi Joint Sealant over the spacers of your countertop. Glue down the wedi Building Panel in thickness of 1 1/2" (38.1 mm) to 2" (50.8 mm) after you have cut it to size. Leave it recessed behind the front of the counter so you can apply a strip of wedi Building Panel to the exposed foam edge as shown in Step 2 and still finish flush. Apply some weight equally on the surface for 15-20 minutes so that the wedi Joint Sealant can set up properly under compression.



02 Apply wedi Joint Sealant and a strip wedi Building Panel in any thickness starting from 1/8" thick standard wedi Building Panels. This strip's cementitious coating side will allow you to better set small tile.



03 Cut out for the sink using a jigsaw or handsaw. As needed, recess cuts might be created with a utility knife or a router to accommodate recessed sinks. Cutting the holes may proceed before or after installation of large format, thin porcelain tile as indicated in step 5.



04 Install the large, or small format tile, including thin veneer tile, or stone to the wedi Building Panel surface and edges using a modified thinset.



05 Apply weight equally distributed across the tile until thinset mortar has set.

Installation Tips:

- wedi Building Panels starting with a panel thickness of 1 1/2" (38.1 mm) can be used over counters without additional plywood support. The wedi Building Panels may overhang at the countertop edges by a maximum of 6" (152.4 mm) if overhang areas are tiled top, front and bottom.
- Some large or irregular shaped countertops will require multiple panels. This makes it necessary for the use of an edge leveling system to maintain a smooth transition between the large format, thin porcelain tile. For timing and method of installation refer to the edge leveling system manufacturer's instructions.
- In areas where the countertop intersects with the backsplash or other vertical projections through the countertop, differential movement will occur. For these active transitions, most manufacturers recommend the use of a color coordinated 100% silicone caulk for its superior flexibility and adhesion, or when applicable a permanent metal or plastic edge treatment piece can be used.
- Full coverage of bonding mortar is critical for the impact resistance of the installed countertop. It has found that a high speed orbital sander with pad is the best way to evacuate the air and collapse the ridges under the panel. The installation guidelines for floors, including but not limited to, proper trowel and troweling technique (excluding the walk-in method for embedding), should be followed for countertops.