butech

PORCELANOSA Grupo

XPS Concept Panels

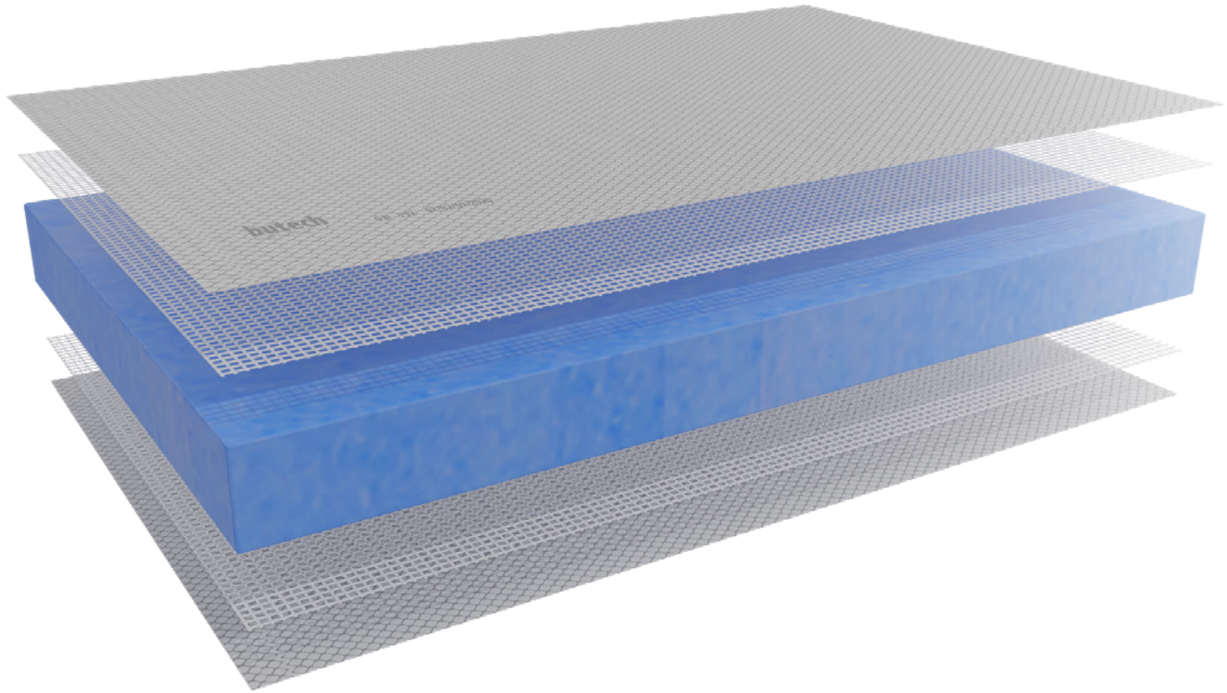
The perfect substrate for tile installation

XPS Concept Panels

XPS Concept Panels take center stage in interior construction due to the need for technical and design solutions caused by the impressive development of tiles in recent years.

In addition, new trends in interior design have expanded their use as coatings in new applications, such as countertops or kitchen and bathroom furniture, which need resistant supports, easy to adapt to any type of shape.

The **XPS Concept Panels** respond to this need, becoming technical solutions with a PORCELANOSA design.



What is the XPS Concept Panel ?

A **XPS Concept Panel** is an extruded polystyrene building board, covered by an enhanced fiberglass-reinforced cement mortar.

It combines the thermal insulation, rigidity, lightness and workability of extruded polystyrene, with the perfection of a prefabricated panel and the compatibility with tile installation on a mortar surface, ideal characteristics for a wide variety of applications. The exclusive combination of fiberglass mesh and flexible mortar coating provides a waterproof surface, especially important in environments with the presence of water.

Advantages in the construction and renovation of bathrooms

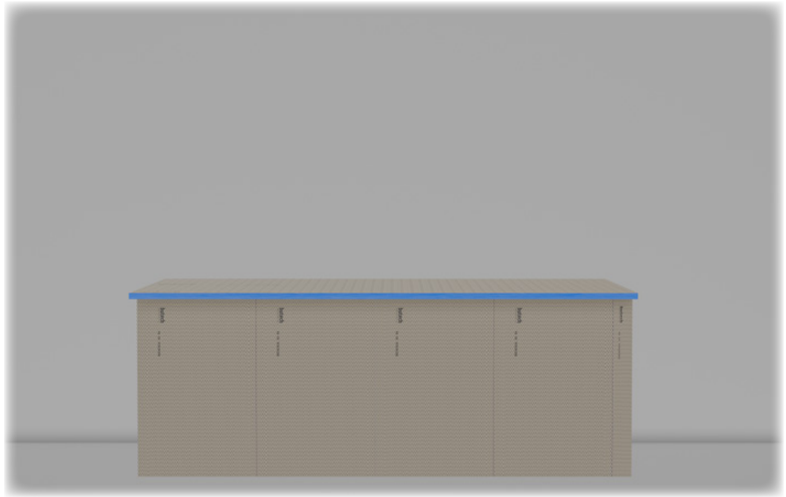
- **Lightness.** Eases the transport and installation of the construction elements. Ideal for renovation work where the support cannot be overloaded.
- **Speed.** Saving time in the creation of construction elements and preparation of the support.
- **Cleaning.** Reduces the amount of waste and facilitates the removal and elimination of waste; no debris container required.
- **Isolation.** Polystyrene is one of the best thermal insulators used in construction.
- **Resistance.** This type of panel, unlike others such as plasterboard or wood, is resistant to humidity, making it ideal for bathroom environments.
- **Versatility.** It facilitates the construction of elements that would otherwise be very expensive to make, such as shower trays, partition walls or bathtubs.
- **Tiles.** Using tiles in applications such as countertops or bathroom furniture is easier than ever.

Where can I use XPS Concept Panels?

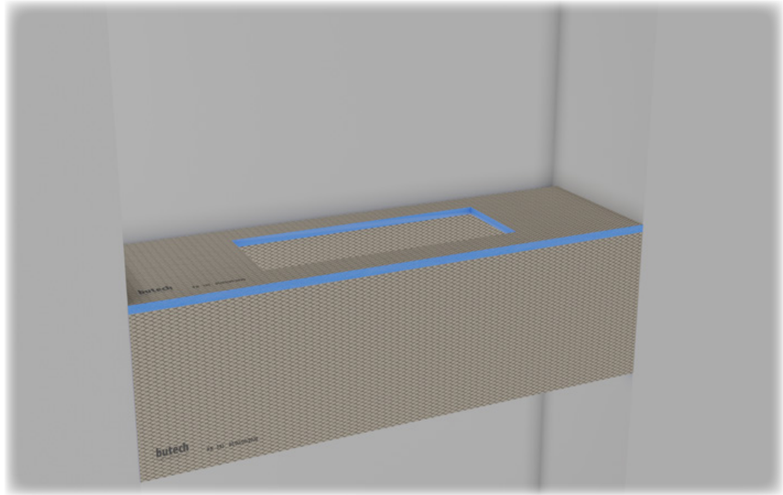
The resistance to contact with water and the null capillarity of extruded polystyrene, make **XPS Concept panels** the ideal support for the installation of tiles, large slabs, mosaics or natural stone, up to 60 kg / m^2, in environments where a perfect laying surface, resistant to water, is needed:

- Countertops and furniture for kitchens and bathrooms.
- Preparation of supports for the installation of tiles, especially in renovation works.
- Interior wall partitions in bathrooms and raised platforms.
- Bathtubs and shower areas.
- Shelves and niches.
- Spas and steam rooms.
- Thermal insulation of underfloor heating.
- Especially suitable for XTONE in the creation of even substrates on floor and wall, or in its installation on countertops.

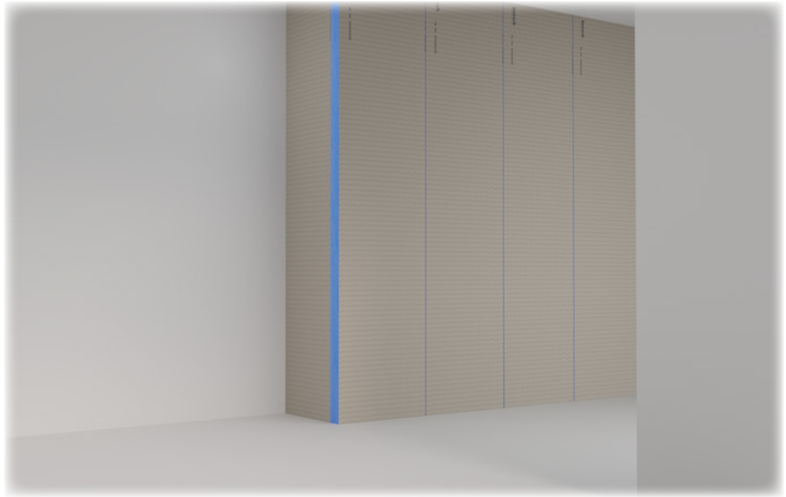
Worktops



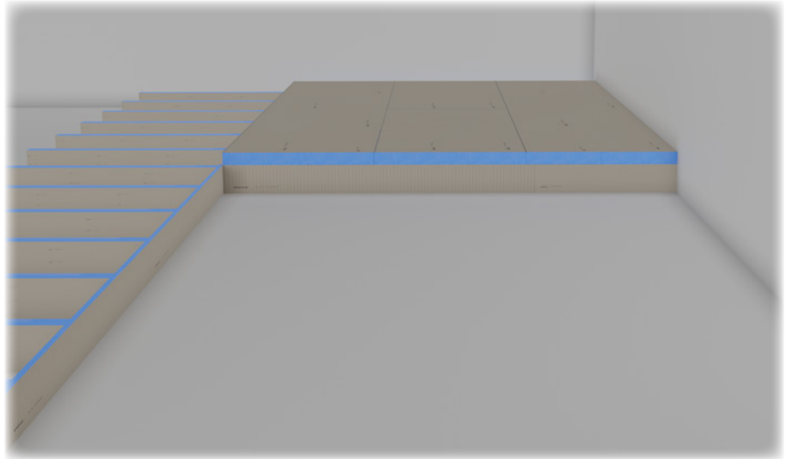
Bathroom furniture



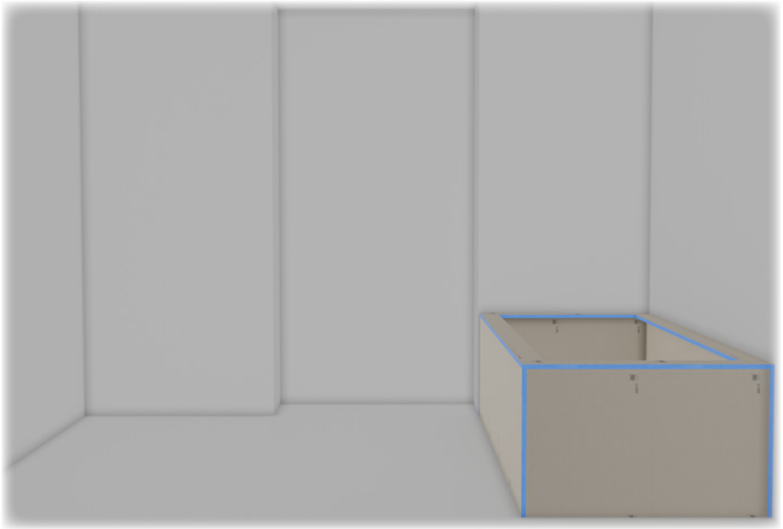
Sanitation and wall cladding



Raised platforms



Bathtubs skirting



Advantages of XPS Concept Panels

XPS Concept Panels are extruded polystyrene panels prepared for the installation of tiles, mosaic or natural stone wall tiles with cement-based adhesives. The lightness and ease of working of polystyrene, as well as its mechanical resistance and resistance to humidity, make this type of panel the ideal base for works in all types of environments with the presence of damp.

Technical characteristics I

Compressive strength with 10% deflection:	According to regulations	
XPS Concept Panel 50 mm	DIN EN 826	4.4 kN/m^2
Water absorption under long immersion periods:	**According to regulations**	
XPS Concept Panel 20 mm	DIN EN 12087	<3.7Vol%
XPS Concept Panel 30 mm	DIN EN 12087	<2.7Vol%
Fire classification Regulations	**According to regulations**	
XPS Concept Panel 50 mm	DIN EN B501-1	E
Working temperature range		-50ºC / +75ºC

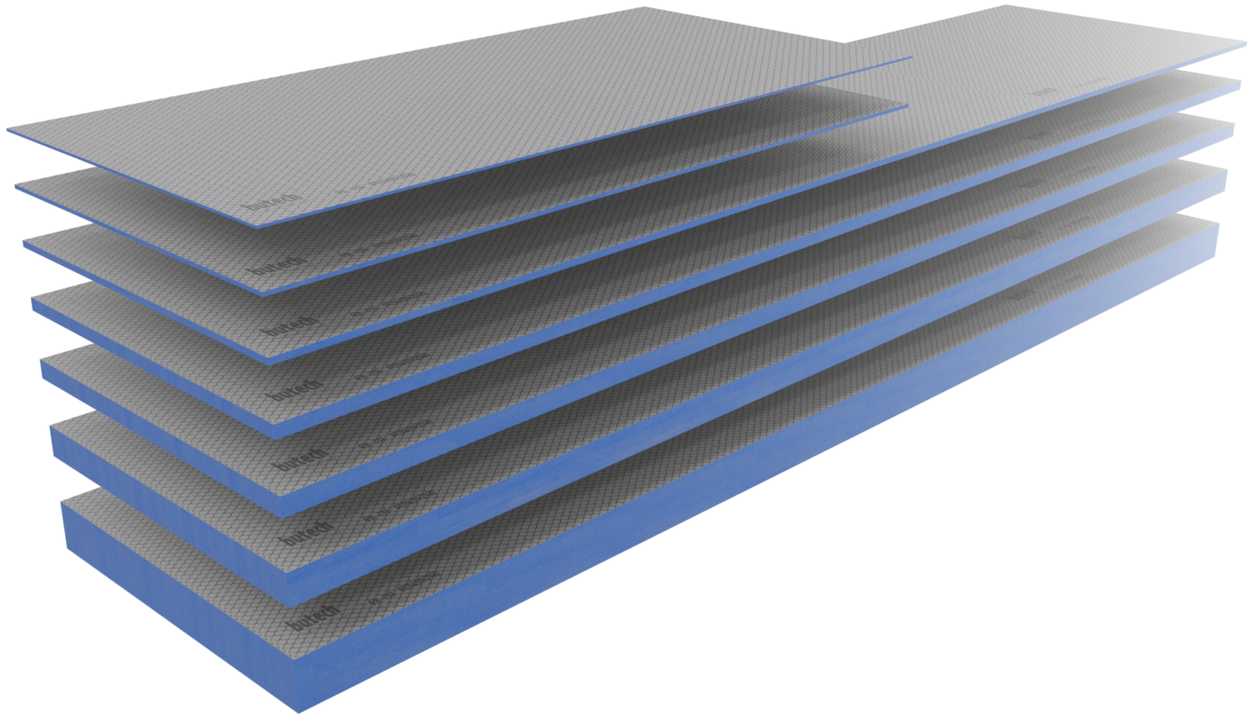
Technical characteristics II

Thermal conductivity coefficient / Thermal resistance	U Value [W/(m²K)]	Value R[(m²K)/W]
Panel Concept XPS 4 mm	4,25	0,24
panel Concept XPS 6 mm	3,42	0,29
Panel Concept XPS 10 mm	2,46	0,41
Panel Concept XPS 20 mm	1,44	0,69
Panel Concept XPS 30 mm	1,02	0,98
Panel Concept XPS 50 mm	0,65	1,55
Panel Concept XPS 80 mm	0,42	2,41

Declaration of performance (CE): XPS - EN13164 - T1 - CS(10\Y)400 - CC(2/1/10)115 - WL(T)3)

Technical characteristics of the XPS foam

Properties	Regulations	Result
Density	DIN EN 1602	> 30 kg/m^3
Thermal conductivity (5 years)	DIN EN 13164	0.034 W/mK
Compressive strength with 10% deflection	DIN EN 826	300 kN/m^2
Water absorption under long immersion period	DIN EN 12087	< 1.0 Vol %
Capillarity none		none
Fire classification	DIN EN 13501 - 1	E



XPS Concept Panel

Product	Length x width (mm)	SAP	Packaging
Panel Concept XPS 4 mm	1250x600	100103351	300 ud/pallet
Panel Concept XPS 6 mm	1250x600	100103352	280 ud/pallet
Panel Concept XPS 10 mm	2500x600	100103349	225 ud/pallet
Panel Concept XPS 20 mm	2500x600	100103350	111 ud/pallet
Panel Concept XPS 30 mm	2500x600	100103354	80 ud/pallet
Panel Concept XPS 50 mm	2500x600	100103355	45 ud/pallet
Panel Concept XPS 80 mm	2500x600	100103356	31 ud/pallet

Assembly elements

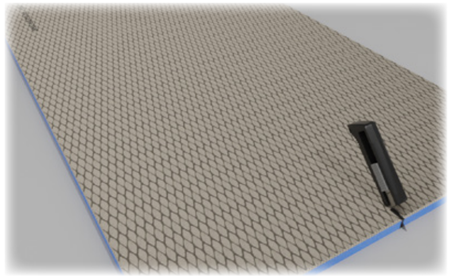
Fasteners	SAP	Packaging
Fijación metal 45 mm	100067686	50 ud/bag
Fijación plástico 130 mm	100062773	10 ud/bag
Fijación plástico 130 mm	100062774	50 ud/bag
Fijación plástico 80 mm	100062775	10 ud/bag
Fijación plástico 80 mm	100062776	50 ud/bag

Mesh	SAP	Packaging
Self-adhesive fiberglass mesh	100062825	Roll 10 m
Self-adhesive fiberglass mesh	100062826	Roll 20 m

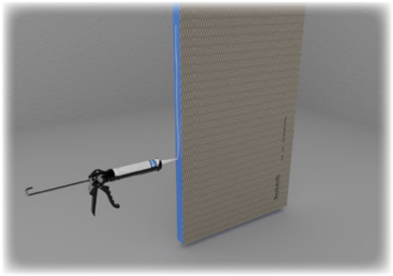
Adhesives	SAP	Packaging
h-920	100292915	310 ml
super-one gris	100031189	25 Kg

Basic instructions for use

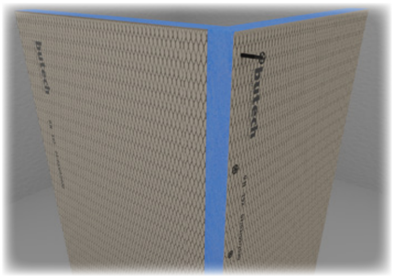
XPS Concept Panels can be used to support tiles and mosaics in a wide variety of applications.
Installation is very easy:



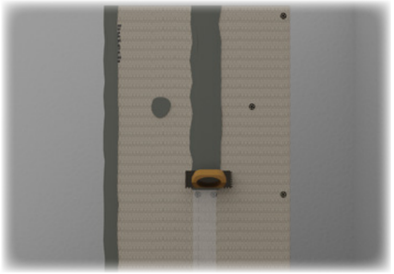
- Depending on the thickness of the **XPS Concept Panels**, cut with a utility knife, hand saw or electric saw.



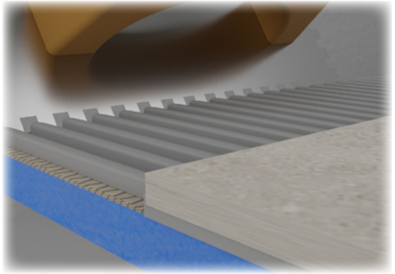
- On the extruded polystyrene foam, either to glue or seal, only use the polymer adhesive **h-920**.



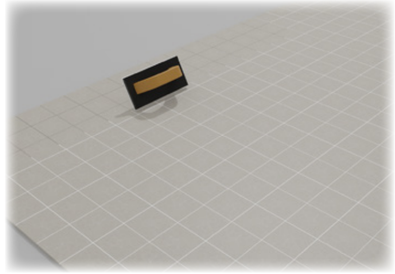
- Use plastic fasteners (self-drilling screws) to hold the **XPS Concept Panels** together while **h-920** cures. Maximum distance 400 mm.



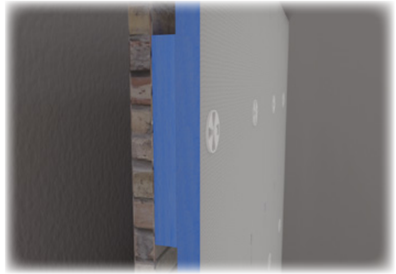
- Cover all corners and cuts that expose the polystyrene foam with a layer of super-one n adhesive reinforced with fiberglass mesh and allow to dry. In the event that the joints need to be waterproofed, replace the adhesive with sylastic, a two-component waterproofing mortar.



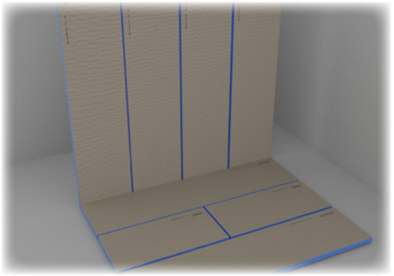
- When installing the wall coverings, use adhesives suitable for the type of tile or mosaic chosen. Make sure that the tile is perfectly seated on the **XPS Concept Panel**, with no gaps under it.



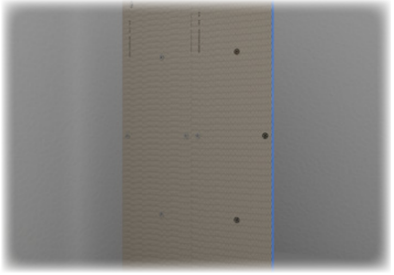
- Whenever possible, use epoxy grouting materials, such as **epotech aqua**.



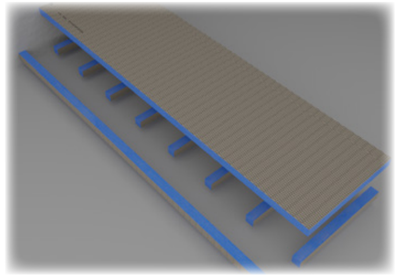
- Analyse where hanging accessories will be placed and reinforce the back of the panel with a portion of **XPS Concept Panel** or a glob of cement mortar.



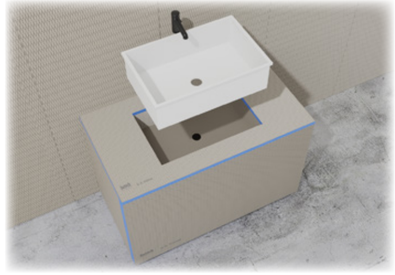
- Always arrange **XPS Concept Panels** in a staggered pattern. On walls, place the panels vertically.



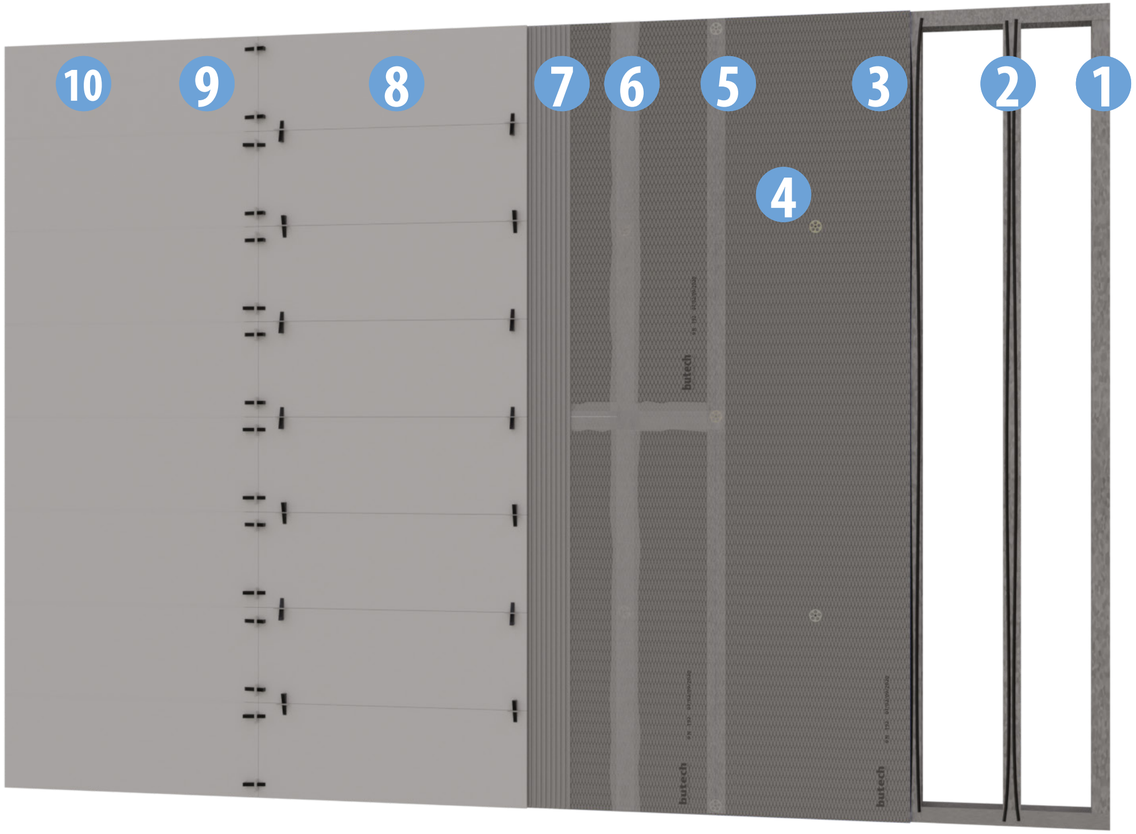
- When reinforcing the installation of **XPS Concept Panels** on the support is needed, use metal fasteners provided with washers that exceed 20 mm the thickness of the board. 5 fixings / m^2 are recommended, arranged approximately every 600mm in alternate rows 300mm apart.



- In platforms, use at least 50mm thick support panels, spaced at a maximum of 400mm.



- In furniture, design freestanding elements. In the case of wall-mounted furniture or countertops, use metal structures manufactured for this purpose.



XPS Concept Panels on metal or wood frames

1. Metal or wood frame

   Distance between studs:
   - 10 mm Panels: Distance ≤ 300 mm
   - ≥20 mm Panels: Distance ≤ 600 mm

2. **XPS Concept Panel**

   Thickness greater than or equal to 10 mm

3. XPS Concept Panel adhesive

   h-920

4. **Metal fixing with washer.**

   Features:
   - Screw length: < 20 mm panel thickness
   - Screw distribution: 5 ud/m^2

5. **Fiberglass mesh**

   Width ≥ 10 cm

6. Mesh lining

   super-one n gris

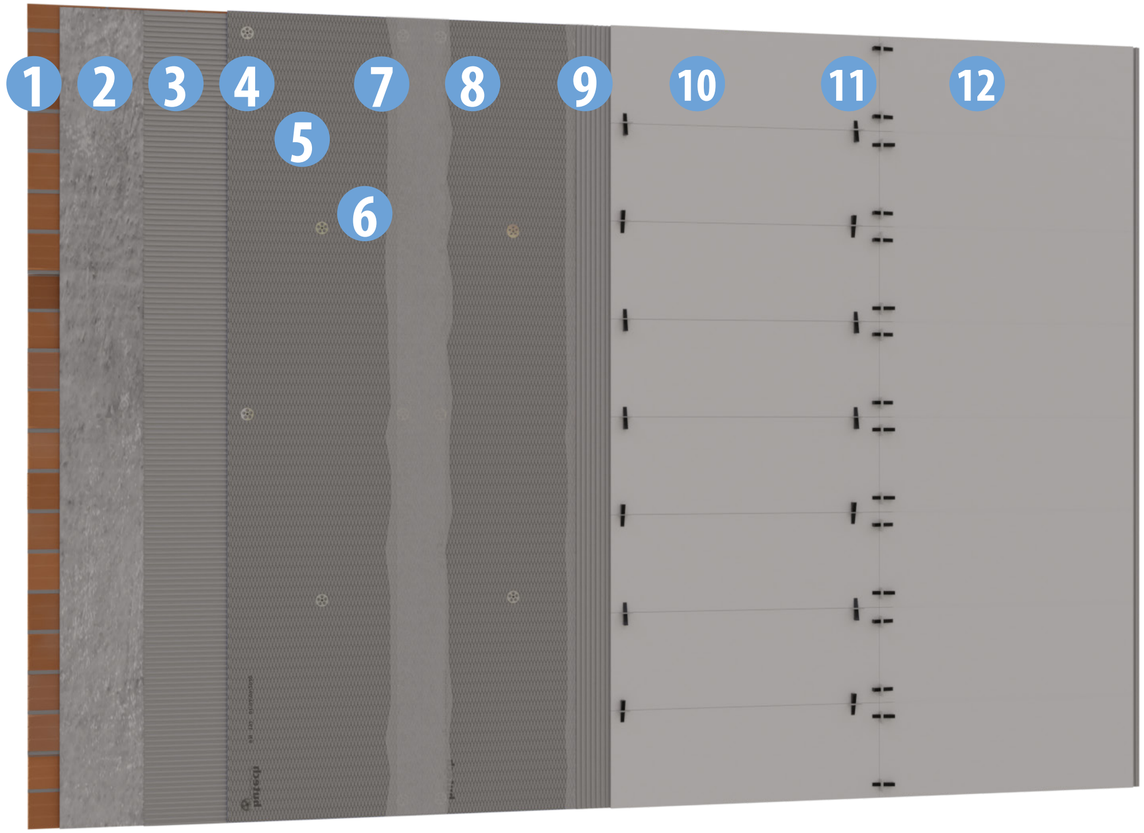
7. Tile adhesive

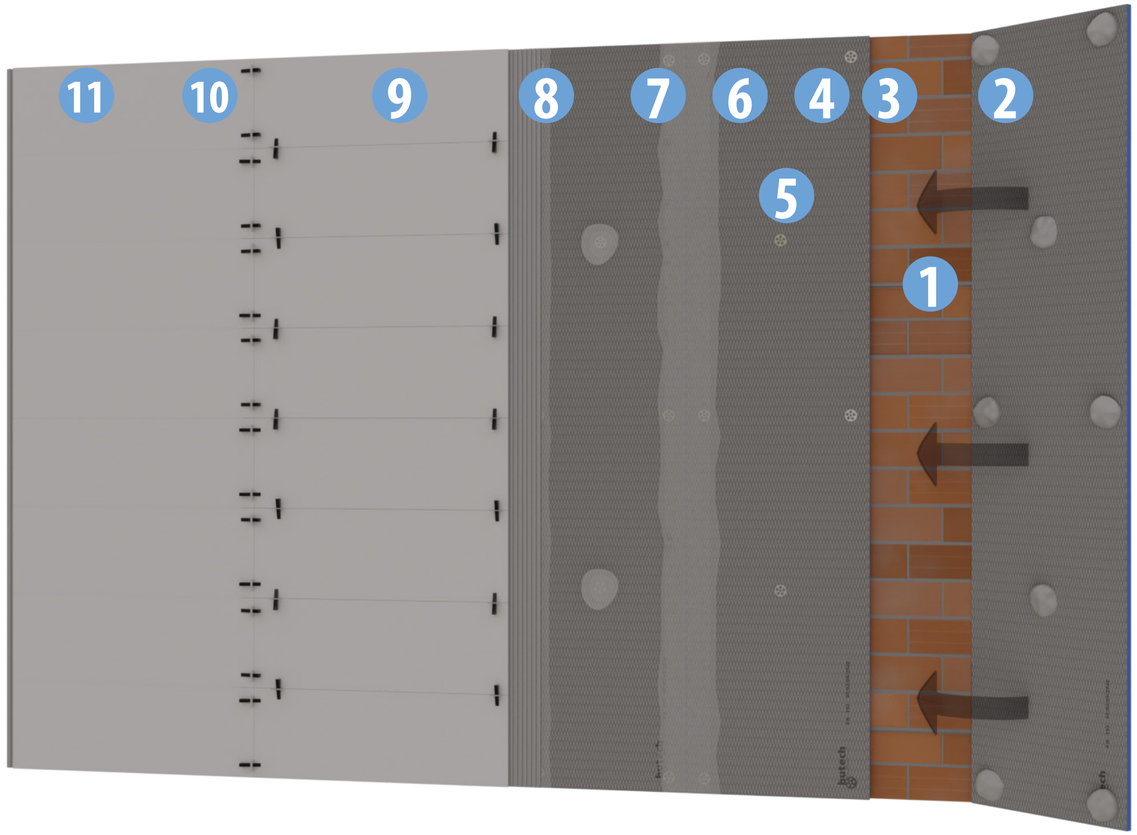
   super-one n gris

8. Tile
9. Butech self-levelling spacers
10. Grouting material

XPS Concept Panels on smooth cement mortar walls

1. Brick partition
2. Screed of cement mortar — Surface suitable for laying ceramic tiles
3. Rear side of XPS Concept Panel adhesive — **super-one n gris**
4. Side of XPS Concept Panel adhesive — **h-920**
5. **XPS Concept Panel** — Thickness greater than or equal to 10 mm
6. **Metal fixing with washer.** — Features:
   - Screw length: < 20 mm panel thickness
   - Screw distribution: 5 ud/m²
7. **Fiberglass mesh** — Width ≥ 10 cm
8. Mesh lining — **super-one n gris**
9. Tile adhesive — **super-one n gris**
10. Tile
11. Butech self-levelling spacers
12. Grouting material



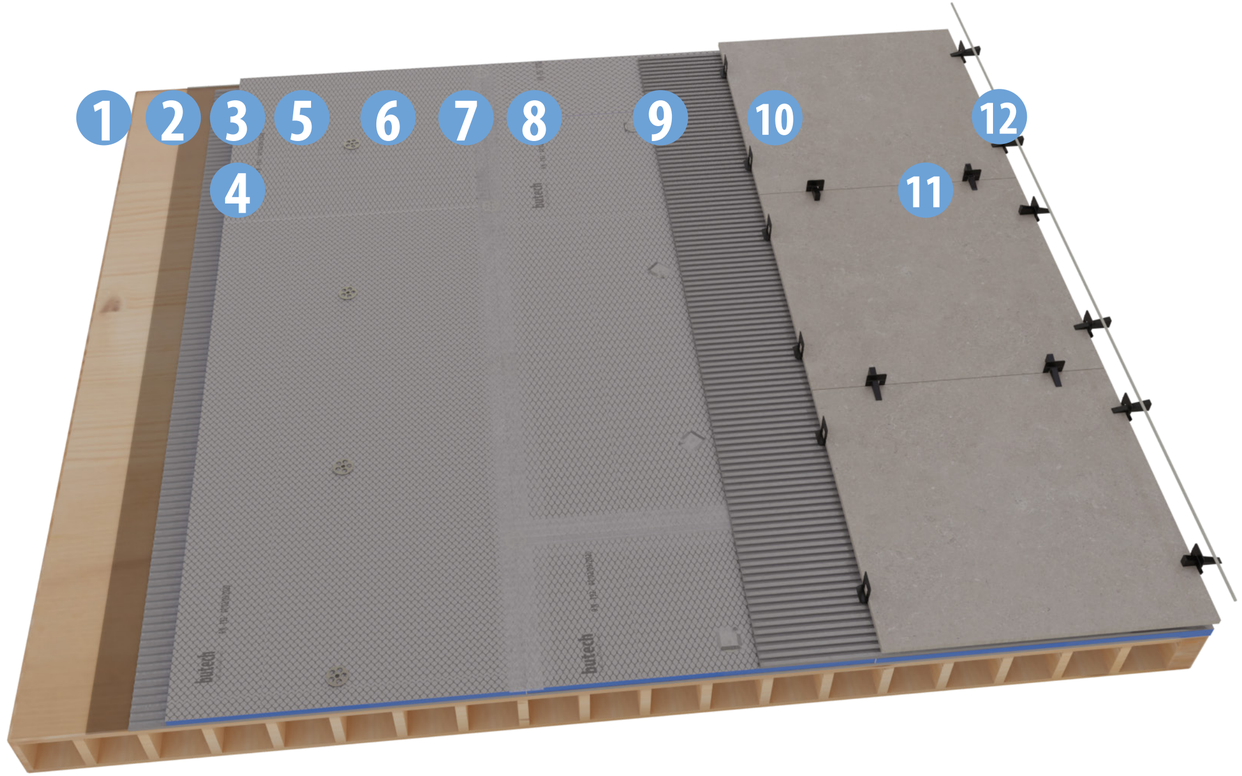


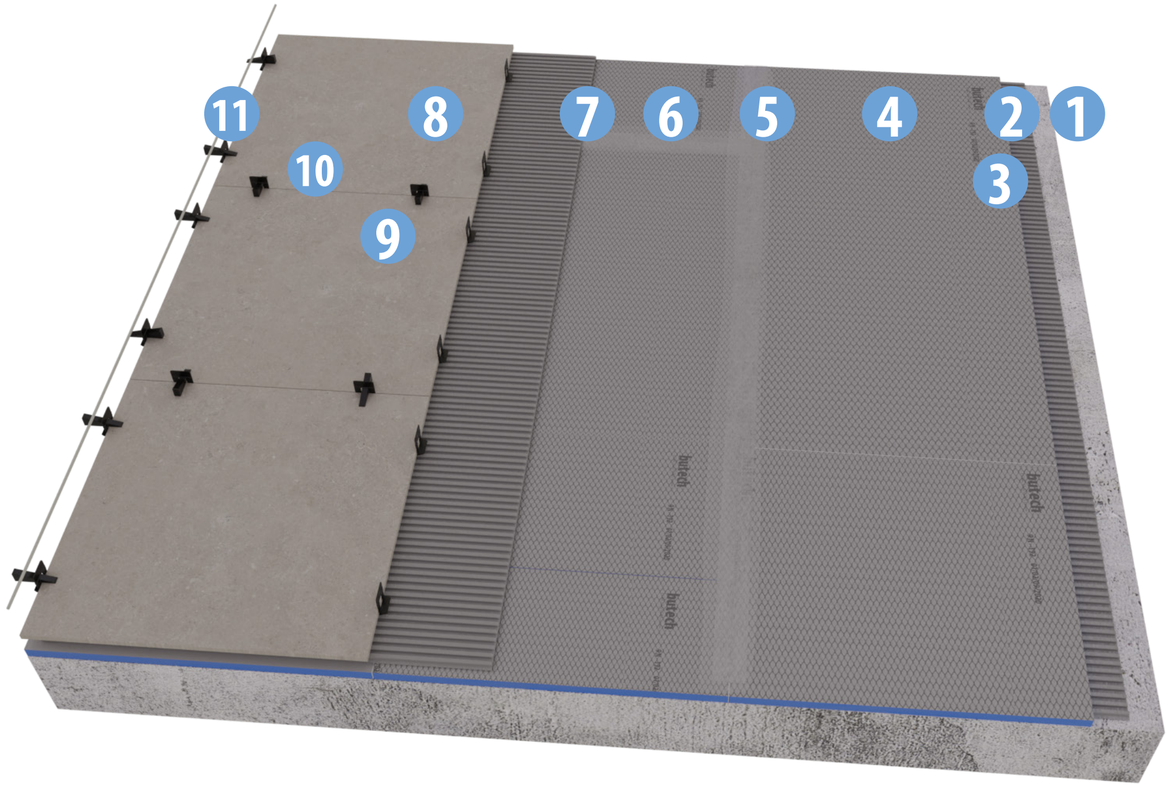
Concept XPS on uneven brick walls

1. Brick partition
2. Adhesive spots — **super-one n gris**
3. XPS Concept panel adhesive — **h-920**
4. **XPS Concept Panel** — Thickness greater than or equal to 20 mm
5. **Metal fixing with washer.** — Features:
   - Screw length: < 20 mm panel thickness
   - Screw distribution: 5 ud/m²
6. **Fiberglass mesh** — Width ≥ 10 cm
7. Mesh lining — **super-one n gris**
8. Tile adhesive — **super-one n gris**
9. Tile
10. Butech self-levelling spacers
11. Grouting material

Concept XPS on timber supports

1. Timber support	Suitable for tile installation
2. Preparation of the substrate	According to the manufacturer's instructions
3. Rear side of XPS Concept Panel Adhesive	**super-flex S2**
4. Side of XPS Concept Panel Adhesive	**h-920**
5. **XPS Concept Panel**	Thickness greater than or equal to 10 mm
6. **Metal fixing with washer.**	Features: Screw length: <20 mm panel thickness Screw distribution: 5 units / m^2
7. **Fiberglass mesh**	Width ≥ 10 cm
8. Mesh lining	**super-one n gris**
9. Tile adhesive	**super-one n gris**
10. Tile	
11. Butech self-levelling spacers	
12. Grouting material	
13. Expansion joint	**s-107 n**





Concept XPS on cement mortar backing

1.	Screed of cement mortar	Surface suitable for tile installation
2.	Rear side of XPS Concept Panel adhesive	**super-one n gris**
3.	Side of XPS Concept Panel adhesive	**h-920**
4.	**XPS Concept Panel**	Thickness greater than or equal to 6 mm
5.	**Fiberglass mesh**	Width ≥ 10 cm
6.	Mesh lining	**super-one n gris**
7.	Tile adhesive	**super-one n gris**
8.	Tile	
9.	Butech self-levelling spacers	
10.	Grouting material	
11.	Expansion joint	**s-107 n**

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H.R.H. THE PRINCE OF WALES
MANUFACTURER AND DISTRIBUTOR
OF CERAMIC TILES AND BUILDING PRODUCTS.
PORCELANOSA GROUP LIMITED

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