

General Properties (raw material)

front:	Cement with sheathing characteristic surfaces
carrier:	5 mm Polypropylene-Honeycomb
back:	Polypropylene fleece
rawsize (max.):	3,020 x 1,250 mm
thickness:	approx. 7 mm
density:	LightBeton 1,950 kg/m ³ PP-Honeycomb 400 kg/m ³
Mass per unit area:	5.9 kg/m ²

Site conditions

The underground for the installation of the LightBeton on PP-Honeycomb-carrier needs to be planar and free of wet and/or dusty trades. Furthermore the climate conditions on site need to be stabilized to normal operational levels. Installation only after proper acclimatization of the material on site for at least 24 hours under normal climatic conditions (approx. 18-25°C [64-77°F] and 40-65% relative humidity) prior to installation.

If the material is installed without a proper acclimatization this could cause changes in material dimensions and direction (warping) which could affect the visual appearance or even damage the LightBeton surface (cracks) when climatisation starts after installation.

Processing of the material

LightBeton contains both a natural mineral and cementitious ingredients and can easily be cut with standard carbide-tipped saws. The lifetime of the tools is comparable to those for processing laminate panels. Cutting of panels layered with LightBeton can basically be done with all standard saw tooth types. We recommend alternate bevel, triple chip carbide tipped saw blades with a thickness of 4.5 mm (1.18"). In order to achieve a better cutting quality, we recommend covering the LightBeton with a thin HDF panel or hardboard when cutting.

When milling larger lots of LightBeton we recommend using diamond-tipped tooling. Regarding all milling and sawing operations standard cutting speeds used in the woodworking industry should be taken into account. Blunt tools, too high rotation speeds and too low feed rates cause frictional heat and increased tool wear. As when operating any machinery always use safety glasses and the proper personal protection equipment.

Cracks and other visible damages can occur due to mechanical stress to the LightBeton-Surface. When fastening metal fittings or other objects onto the surface of LightBeton pre-drill at least in the size of the screw shank diameter (less flutes) in order to avoid possible material stress. Regarding wet areas, all openings and drilled holes have to be sealed with the proper sealants in order to prevent water from entering.

Installation


Due to the PP-Honeycomb not every adhesive is suitable. Adhesive systems that contain a high part of water are not recommended as the PP-Honeycomb is not able to take part in absorption! Epoxy resin and MS-Polymer based adhesives are suitable to nearly every underground material.

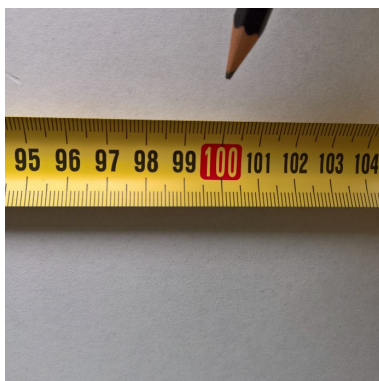
Please check the datasheet of your supplier if an adequate bonding between the PP-Honeycomb and the underground is guaranteed and which quantity of adhesive is needed to guarantee an appropriate and long lasting installation of the material.

Natural appearance

Due to the natural properties of any cementitious product, linear surface cracks can and will occur. These cracks are unavoidable and are common due to the natural hydration of the concrete. Hairline cracks are a characteristic feature of exposed concrete and do not represent any damage, only a natural occurrence.



 Ensure that the surface is flat, clean, dry, sound and free from contaminating material like dust, grease or similar.



Mark the first cross joint in width and height.



Level the joint in the whole vertical direction to ensure a correct arrangement of the panels.



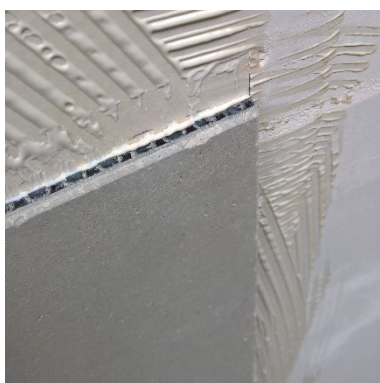
Level the joint in the whole horizontal direction to ensure a correct arrangement of the panels.



Spread the adhesive onto the wall with a notched trowel (i.e. 2.3 x 2 mm notches at 5 mm on center, check the suppliers datasheet).




Only apply adhesive for at most 20 minutes to avoid a hardening of the adhesive before placement of the panels. If required allow a ventilation of the adhesive before placement of the panels.



Place the first panel according to the marked cross joints by slightly twisting it into the adhesive and thereby ensure a good overall contact.

Based in the correct position, press the panel firmly into the adhesive.



 Avoid higher amounts of adhesive material in the panel joint area to prevent a penetration of adhesive through the joints.

Also avoid spreading adhesive to the panel's surface while completing the wall arrangement. Adhesive needs to be removed before curing.



Complete the wall arrangement from bottom left to top right.

Do always check if the panel joints are set straight and proper to the planned arrangement.

After placement of the last panel press all panels firmly to the wall once again to guarantee a full adhesive contact.

Our application of technical recommendations in written and spoken that we use to support the buyer / processor based on our experience, according to the current state of knowledge in science and practice, are not binding and shall not establish a legally valid contractual relationship, and no addition to obligations under the purchase contract. You do not absolve the buyer from our products for their suitability for the intended purpose to examine themselves.