

Technical Product Card

	General characteristics	Usable properties
1	Concrete cladding element	Resistance class 30/37
2	Bending tensile strength	≥ 2.0 (MPa)
3	Density class	1.8
4	Dimensions tolerance	Class A (± 3 mm)
5	Reaction to fire	Euroclass A1
6	Steam permeability coefficient	$\mu = 5/15$
7	Stability of dimensions under the influence of moisture and drying. Contraction caused by drying (inside/outside)	0.60/0.34 (mm/m)
8	Isolation from direct air sounds	Gross density ≤ 1800 kg/m ³
9	Resistance to freezing and defrosting with the participation of deicing agents	< 0.6 kg/m ²
10	Unified technical specifications	PN-EN 14992+A1:2012 PN-EN 13369:2013-09 PN-EN 206:2016-12

All works shall be performed according to construction best practices. The description above has been prepared according to the state of the manufacturer's knowledge and experience. Always check individual installation conditions on-site.

Ask the designer or manufacturer for installation details.
Submit questions and doubts to the address: support@wallset.eu

IMPORTANT

△ WallSET concrete panels are not DIY products and need to be stored, unpacked, handled and installed ONLY by experienced professionals.

△ Make sure to provide adequate support for the panels after removing the safety tape. Use extreme caution to avoid the risk of accidents or damaging the panels.

△ Before installation, the panels need to acclimatise to the room conditions for at least 48 hours. Allow uniform air access to both sides of each individual panel. We recommend using polystyrene spacers.

△ When using water-based adhesives for installation, both the WallSET panels and the designated wall/surface should always be primed before installation. Water-based glue application without the use of any primer may bend already installed concrete panels and cause discolouration.

△ Exposure of the panels to humidity and weather conditions may damage their structure and cause alterations. (e.g. bending, swelling, breaking, discolouration, etc.). Please carefully follow the storage, maintenance and installation instructions provided.

PRODUCT INFORMATION

MATERIAL

WallSET architectural concrete panels are made of real C30/37 concrete. We only use cement, LECA aggregates, reinforcements in the form of polypropylene fibres and additives that improve consistency. That's why the panels surface, through careful workmanship, reflects the nature of the concrete - raw and real. When designing our mix, we aimed to make it as close as possible to the appearance of cast concrete at the construction site.

TEXTURE & COLOUR: CONSISTENTLY INCONSISTENT

Concrete is a natural surface with tonal and colour variation. Air bubbles on the surface can occur in varying numbers, sizes, intensities and locations, as it is typical for concrete. Streaks and differences in colour and smoothness on the surfaces are also possible. The colour and aesthetic value of mature concrete are influenced by many factors, such as humidity, temperature, type and origin of the cement as well as of the aggregates and admixtures used for production. The colour may also change depending on the conditions (temperature, humidity) at the place of storage and assembly. Therefore, there may be significant colour differences between individual production batches and, to a lesser extent, between products in the same batch.

SIZE & WEIGHT

We offer architectural concrete cladding panels in standard sizes (60x60cm, 50x100cm, 60x120cm, 75x150cm) and thicknesses (11mm, 20mm), in two different porosities (normal, high) and four basic colours (white, natural, grey, anthracite). On special requests it is possible to prepare panels in different sizes, colours and even shapes. Due to the natural processes occurring during the maturation, the panels may present slight size differences and deviations. A deviation of thickness and straightness of ± 2 mm and dimensional variations of ± 3 mm are within the norm.

The features described above are characteristics of concrete and their occurrence is intentionally intensified in the production process. These

features do not constitute grounds for complaints. To keep similar colours of individual panels mounted in one place, the above information should be taken into account at the stage of quantity planning and ordering.

TRANSPORT & STORAGE

During the transportation, our panels are laid flat or vertically on the pallets and fastened with tape. To protect the panels, they are laid alternately with foamed polystyrene spacers (or cardboard), the corners are secured with cardboard protective corners and the whole pallet is wrapped in stretch film.

The pallets should be transported, moved and laid down carefully and in such a way so they are not exposed to bending, knocks, hitting with sharp objects and shocks. It is also unacceptable to place further loads on the pallet or stack pallets.

The panels should be stored inside dry, closed rooms, at a temperature of 5-25°C and protected against the weather conditions.

UNPACKING & ACCLIMATIZING

After removing the safety tape, make sure to provide adequate support to the panels. Use extreme caution as the panels have a considerable weight and, if they tip over, they may cause accidents or get damaged.

After unpacking, the panels should be gently lifted and moved vertically, the long side parallel to the ground. The edges are sharp, please handle with care. Also, avoid hitting the surface of the panels with hard, heavy or sharp objects, as this may cause mechanical damages.

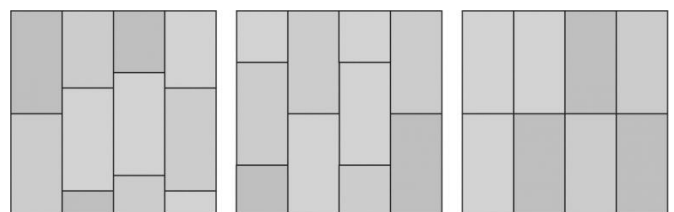
Before installation, the panels need to acclimatise to the room conditions for at least 48 hours. Place the panels on a flat, horizontal plane. Allow uniform air access to both sides of each individual panel. If necessary, use polystyrene spacers making sure that the entire surface is supported.

INSTALLATION NOTES

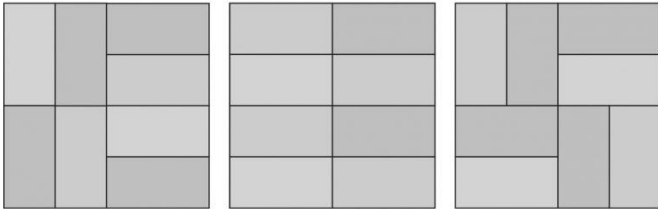
WallSET concrete panels are not DIY products and need to be stored, unpacked and installed ONLY by the experienced professionals.

PLAN AHEAD

Due to the possible differences in the appearance of the surface of individual panels (occurrence and size of air bubbles, colour and dimensional discrepancies), it is necessary to plan the distribution of individual panels on the wall and the order of assembly, prior to the installation. Panels can be installed in any combination and pattern:



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It is not allowed to use the concrete cladding as a base for installation of load-bearing elements, such as hangers, TV, speakers, etc. Any such element needs to be fixed to the substrate instead.

SURFACE PREPARATION

The substrate should be prepared for installation. It should be seasoned, mechanically strong, clean, dry, homogeneous, even, free from grease, wax and oil, vacuumed and dusted. Old coatings, cement milk and poorly adhering particles must be removed. Failure to appropriately clean the surface may inhibit the adhesive from properly adhering, causing the panels to shift.

If the wall has insufficient load-bearing capacity or whenever there is a doubt about the quality of the substrate, in order to reduce the risk of the adhesive peeling off - as a result of applying it to peelable substrates, such as plasters, coats or unbound coatings - we recommend mechanically fixing to the substrate an OSB/plywood board with a thickness of at least 12 mm. Depending on the adhesive used, these boards may subsequently need to be primed in order to achieve a strong and dust-free surface. Before assembly, you should read the technical data sheet available on the adhesive manufacturer's website.

CUTTING THE PANELS

Architectural concrete cladding panels can be cut, also at a 45° angle, or drilled with the help of professional concrete cutting machines: diamond saw blades with a full blade. Cutting and drilling holes should be done with appropriate tools, avoiding impacts, making sure to position the concrete panel flat, and evenly supporting the entire surface. After cutting, every edge should be gently sanded with sandpaper.

Upon request, WallSET panels can receive full waterproofing treatments. In these cases, when cutting a panel, some untreated parts can remain exposed. There must be no water or other liquid on untreated parts of the panels. After using water tools, cleaning with water and after any contact of the panels with water, the surfaces should be dried with a clean, absorbent cloth. Before any further work or treatment, allow the surface to dry completely in such a way that both sides of the board have free air access and dry evenly.

Concrete is a hygroscopic material susceptible to bending as a result of changes in humidity on any side of the board, so it is extremely important to pay special attention during cutting and installation.

Damages resulting from non-compliance or negligence are not covered by the warranty.

ADHESIVE & GROUT

Both for indoor and outdoor projects and for wet areas installation we recommend any of the following adhesives.

- Mapei Keralastic T two-component polyurethane adhesive (also available in white). This adhesive should be applied on the entire surface, using a notched trowel that can ensure at least 70% coverage of the board underside.

- Mapei Keraflex Maxi S1 only with additional primer agent Mapei Mapecoat or Mapei EcoGrip. The primer should be laid both on the back of the panels and on the wall, and should be completely dry before proceeding with the adhesive.

For maximum precision, we recommend using a tile levelling tool (e.g. Kit Tile Level by Rubi) to allow levelling 4 panels at a time.

If grouting is necessary, we recommend Mapei Ultra Colour Plus, which comes in different shades of grey.

Before using any of the above mentioned adhesive and grouts, make sure to familiarise yourself with their technical data sheets and installation manuals.

MAINTENANCE

The panels can be vacuumed but please do take extra care to avoid potential scratches (e.g. use extensions with soft brushes). If further cleaning is necessary, use a clean sponge, soft brush or microfibre cloth.

If the panels are untreated (waterproofing or other treatments), they should not be stained with any substance. In case of it happening, the stain should be removed immediately, in a way that does not push the substance further into the panel structure.

Waterproof panels can be clean with lukewarm water with a mild cleaning agent, e.g. liquid soap.

Do not scrub the panels intensively or expose them to other aggressive, abrasive tools and agents. Do not use chemicals such as solvents, acetone, agents containing ammonia etc.

IMPORTANT INFORMATION

The information contained in this document results from our experience and previous knowledge, however, it is not binding. The conditions of a particular implementation should be judged onsite and considered on a case-by-case basis, e.g. wall type or place of installation, purpose and expected effects. In any case, the general principles of construction technique and the guidelines given by the material manufacturers must be observed.

Installation should always be carried out by professionals experienced in this type of work. The manufacturer is not responsible for incorrect installation, not compliant with the information included in this Manual and in the documents referenced therein, including Adhesive Information Cards, in particular for the wrong assessment of the load capacity and the condition of the construction of the wall.

By placing an order, the buyer declares that he is familiar with the features of architectural concrete, including those listed in this Manual and accepts them. The buyer also acknowledges and accepts the possibility of visual, aesthetic and colour differences in relation to marketing materials, photos, visualisations and samples.