Installation recommendations for SKINROCK® Natural Stone Panels

Referring to the clarifications by our application technology, we gladly confirm our installation recommendations below.

Application area Skinrock® natural stone panels

Skinrock® Basic type S

Natural stone panels with rear coated in quartz sand as wall covering indoors and for limited use outdoors.

Skinrock® Basic type N

Natural stone panels for refining kitchen cabinets, furniture, etc.

Skinrock® Translucent

Natural stone panels with translucent background. Is applied to acrylic glass or glass indoors and lit from behind.

Skinrock® Basic Plus

Natural stone panels with an applied seal and rear coated in quartz sand. Is used as flooring indoors and for limited outdoor use. In exposed areas (bathroom, outdoors), the format is limited to 1200 x 1200 mm at most. We recommend the Skinrock®-Basic Plus flooring only in private buildings. We recommend against use in public areas.

Standard formats

All patterns are available in two standard formats

2500 x 1200 mm (type S / type N / Translucent / Plus)
1200 x 600 mm (type S / type N / Translucent / Plus)

Substrates

Nearly all substrates are suitable as substrates, such as:

- Base plaster: Cement plaster and lime-cement plaster
- Drywall panels
- Masonry, concrete and screeds
- Screeds with special binders
- Old natural, artificial and ceramic floorings
- Metal, wood, plexiglass, acrylic glass
- Styrofoam, trough carriers, composite elements of expanded or extruded polystyrene with mortar coating and tissue arming

Substrates must be dry, firm, load-bearing, form-stable, level, crack-free and free of dust, dirt and other separating agents. Old floorings that are not firmly adhering and weakly bonded coats of paint that are not firmly adhering, as well as loose plasters and wallpapers, must be removed.
The substrate inspection must be performed mandatorily before every work step.

Base plaster surfaces

From a panel size of > 1600 cm^2 onwards, we recommend using a basic plaster with a compression resilience of > 6 N/mm^2 according to SIA 242.

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Concrete surfaces

To remove adhesion-reducing components, such as cement glue layers, we recommend that you use a mechanical substrate preparation procedure such as sand-blasting, staking or grinding by PKD cup wheel.
All chemical after-treatment media and cement glue layers must be removed. This creates an enlarged surface structure with good grip and thereby ensures an optimal adhesive bond.

Metal surfaces

Must be roughened with metal grinding paper and cleaned with acetone.

Plexiglass and acrylic glass surfaces

Must be roughened with grinding paper. A surface structure with good grip must be achieved.

Regarding readiness for covering and for any installation work, observe the manufacturer's information for the substrates.Approved residual moisture for installation of Skinrock <0.5 mass-CM% on any substrate.

Base plaster surfaces

Permitted residual moisture
- Cement base plaster ≤ 0.5 mass-CM%
- Lime-cement base plaster ≤ 0.5 mass-CM%

Concrete surfaces

Concrete age at least ≥ 2 months – without primer. If ≤ 2 months, a steam-diffusion-barrier epoxy resin primer must be applied in two work steps. For the second work step, the primer is sanded while still wet with an excess of quartz sand.
Recommended products: **Primer MF** or **Primer MF EC Plus**

Cement-bound screeds

Required minimum residual moisture ≤ 0.5 mass-CM%. If the residual moisture is ≥ 0.5 mass-CM%, a steam-diffusion-barrier epoxy resin primer must be applied in two work steps. For the second work step, the primer is sanded while still wet with an excess of quartz sand.
Recommended products: **Primer MF** or **Primer MF EC Plus**

Calcium-sulphate-bound screeds

Permitted moisture ≤ 0.5 mass-CM% - with and without floor heating.
According to SIA 251:2008, a cleaning polish must be performed. This is best implemented with a paper K 60. Subsequently, fine dust must be removed thoroughly with an industrial vacuum cleaner. To bind residual dust, the calcium-sulphate-bound screed is primed with an epoxy resin in one work step.
Recommended products: **Primer MF** or **Primer MF EC Plus**

Resin-treating cracks

Cracks must be closed force-locking. We recommend **EPORIP, EPORIP TURBO** or **EPORIP SCR** and shaft connectors for this application.

Sealing work

In areas subject to moisture, moisture-resistant substrates must be used and sealing is required before installation. The composite seal takes place with **ULTRABOND ECO PU 2K** or

KERALASTIC T, in connection with sealing tape and sealing tape accessories (**MAPEBAND EASY** or **MAPEBAND GREY** and accessories).
Sealing tape, inner and outer corners are bonded with **ULTRABOND ECO PU 2K** or **KERALASTIC T** and completely grouted over or covered. For sealing feedthroughs for sanitary connections, the **MAPEGUARD PC** sleeves must be used.
A composite seal must be executed according to the specifications of the leaflet of the Schweizerischer Plattenverband (SPV leaflet: Verbundabdichtungen unter Keramik und Natursteinbelägen im Innenbereich (composite sealing under ceramic and natural stone floorings indoors) that reflects the current state of the art.
After curing of the seal, panels can be placed with the polyurethane glue **(ULTRABOND ECO PU 2K** or **KERALASTIC T)**.

Situation

The following should be observed for professional production of floorings with large natural stone panels.
The substrates must meet increased requirements of levelness and size accuracy.
Please note: if necessary, all these preparations must be carried out prior to the sealing work.

Wall surfaces

Irregular substrates must be levelled with a suitable compensation size before installation.
Recommended products: **PLANIPATCH, PLANITOP FAST 330**

Floor surfaces

In order to meet the levelness requirements, the floor areas are to be levelled with a floor grouting mass.
Recommended products: **ULTRAPLAN ECO PLUS, ULTRAPLAN MAXI, FIBERPLAN**

Installation work

Substrates must be dry, firm, load-bearing, form-stable, level, crack-free and free of dust, dirt and other separating agents. Old floorings that are not firmly adhering and weakly bonded coats of paint that are not firmly adhering, as well as loose plasters and wallpapers, must be removed. The rear of the Skinrock® panels must be free from dust, dirt and other separating agents. Skinrock® panels must be installed in the combined procedure (floating buttering). We recommend placing the serrations in parallel to each other in floating buttering.
This procedure is particularly important because the panels can no longer be pushed into the glue bed due to their size, but must be pressed on. The notched trowel must be chosen to ensure good wetting and installation with as few hollows as possible; in particular pointed teeth or a notched trowel with a V-shape are extraordinarily suitable. We recommend a serration of 4 mm.
On the rear of the panel, an initial covering contact layer, among others, levelling the irregularities of the Skinrock® panels' backs, is applied in the same direction as on the substrate using the installation glue; it is then applied with the glue using a notched trowel in the same direction as on the substrate. Subsequently, the natural stone panels are firmly pressed into the adhesive bed.
Use of press-on rollers is recommended.
We recommend **ULTRABOND ECO PU 2K** or **KERALASTIC T** as installation glue.
ULTRABOND ECO PU 2K is a two-component, very low-emission, solvent-free, highly elastic polyurethane-based glue. It can be used indoors and outdoors, on any substrate, without primer.

Important note: Do not use on moist substrates or with moisture acting from the rear without a steam-diffusion-barrier epoxy-resin primer.

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Installation work Skinrock®-Translucent

To avoid impairment of the appearance of Skinrock®-Translucent panels, we recommend transparent bonding with light-permeable products **MAPEFLEX MS CRYSTAL** or **KERAPOXY DESIGN no. 700**.
Skinrock®-Translucent panels must be installed in the combined procedure (floating buttering). We recommend placing the serrations in parallel to each other in floating buttering. This procedure is particularly important because the panels can no longer be pushed into the glue bed due to their size, but must be pressed on. The notched trowel must be chosen to ensure good wetting and installation with as few hollows as possible; in particular pointed teeth or a notched trowel with a V-shape are extraordinarily suitable.
The rear of the Skinrock® panels must be free from dust, dirt and other separating agents.
On the rear of the panel, an initial covering contact layer of the installation glue is applied first, levelling the irregularities of the back of the Skinrock®, applied in the same direction as on the substrate; it is then applied with the glue using a notched trowel in the same direction as on the substrate.
For transparent bonding, the serrated glue must be smoothed by turning the notched trowel (smooth side) after the glue is applied by notched trowel. This way, the panels can be embedded without any air bubbles. Subsequently, the natural stone panels are firmly pressed into the adhesive bed. Use of press-on rollers is recommended.

Joints

After installation, wait for at least 24 hours before starting to grout the joints. We recommend using a polymer-based Skinrock® Grout for this. Our products ULTRACOLOR PLUS or KERACOLOR FF can be used mixed with FUGOLASTIC. For large natural stone panels, joint grouting in the injection method is recommended, i.e. joint material is filled into a mortar pump and joint grouting is then performed manually or with a machine.
Joint grouting by conventional surface washing is not recommended.
In areas subject to moisture, we recommend installation with a minimum joint width of 2 mm.

Elastic joints

We recommend the joint mortar **MAPESIL LM**.
MAPESIL LM is a single-component, low-odour, neutrally linking silicone sealant to close elastic joints in natural stone floorings.

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