

SILICATE

CALSILIT T

Silicate render



MAIN ADVANTAGES

- Mineral nature
- Resistant to adverse weather conditions and industrial contamination
- Increased resistance to soiling
- Exceptional vapour permeability
- Natural resistance to algae and fungal growth

AREAS OF APPLICATION

To be used as manually applied thin-coat renders for external use, including in EPS-based insulation systems. It can be used only on mineral substrates (such as: concrete, cement render, lime or cement-lime renders), on newly erected and existing building façades, including the renovation of historical buildings. Thanks to high vapour permeability, it allows for "free" evaporation of moisture present in the masonry. The substrate should be primed with **CALSILIT GT** before applying the render.

TECHNICAL DATA

Base binder: potassium water glass;
Pigments: inorganic coloured pigments, resistant to weather conditions;
Colours: natural white and colours from KABE colour chart and selected colours from the NCS colour chart (possible to obtain using inorganic pigments);
Textures: solid;
Grain size: 1.0 mm; 1.5 mm; 2.0 mm; 2.5 mm; 3.0 mm;
Temperature of application (air and substrate): from +8°C to +25°C;
Relative air humidity: ≤ 75%;
Vapour permeability: $S_d = 0.06$ m (cat. V1);
Water absorption: $w = 0.49$ kg/m²·h^{0.5} (cat. W2);
Packaging: Disposable plastic packaging holding 25 kg of the product.
Storage: Product should be stored in original sealed packaging, in a cool room, but protected from frost. Opened packaging should be tightly closed and used as quickly as possible.
Shelf life: 18 months from the date of production printed on the packaging, with originally sealed packaging.

 Average coverage (kg/m²):

Texture	Grain size (mm)				
	1.0	1.5	2.0	2.5	3.0
SOLID	1.8	2.3	3.0	3.7	4.5

HOW TO USE

SUBSTRATE PREPARATION: Substrate should be mineral and sound/stable (without scratches and cracks), degreased, even and dry, and free of biological contamination or chemical efflorescence. In case of algae/fungi growth, the substrate should be cleaned mechanically and then washed with water and disinfected with **ALGIZID**. Any loose layers, not bound to the substrate (e.g., loose render or flaked coatings), should be removed. Old and/or dirty substrates should be washed and degreased with water and **CLEANFORCE** cleaning agent. For particularly uneven substrates, first use levelling compounds, and then smooth out the surface with finish levelling and smoothing compound. Small unevenness can be smoothed right away with levelling and smoothing compound. Use the above products according to their technical data sheets. An absorbent substrate should be primed with an adequate product before applying base coats and/or levelling compounds. If the render is applied on new mineral substrates (e.g., concrete, cement render, cement-lime render) – a minimum 2-week curing period is required. The base coats of the EWI system should be performed in accordance with the technology of the External Thermal Insulation Composite Systems for buildings – ETICS. **Note:** Directly before applying a silicate render, the surfaces made of materials susceptible to alkalis (i.e. wood, metal, glass or clinker brick) should be protected against splashing.

PRIMING: The substrate should be primed with **CALSILIT GT** before applying the render. The curing period of the product applied to the substrate before applying the render is about 24 hours. To reduce the risk of the substrate colour showing through the top coat texture, it is recommended to use a primer with the same colour as the render.

PRODUCT PREPARATION: The packaging contains a ready-to-use product. If stored for a long time and directly before application, the product should be thoroughly mixed (with a low-speed mixer fitted with a basket stirrer), until a smooth, homogeneous consistency is obtained. Further mixing is not recommended, as it may result in excessive aeration of the product. If required, add a small amount of drinking water (max. 0.25 l per 25 kg of the product). Quantity of added water may vary depending on the substrate type, drying conditions and application method.

APPLICATION: Using a stainless steel trowel, apply a thin, uniform layer of the product to the substrate. Then, use a plastic trowel to create a texture, rubbing the applied compound with circular motions. **Note:** The product is alkaline, therefore, it is necessary to protect eyes and skin. Safety clothing must be worn while carrying out any work. In case of contact with eyes, immediately rinse them thoroughly with plenty of water. If irritation develops, seek medical assistance.

DRYING: Typical setting (hardening) time of the render applied to the substrate is approx. 72 hours (at +20°C, 55% RH). **Note:** Setting time may be longer, up to several days, due to low temperatures and high relative humidity. The newly applied render should be protected against precipitation and condensation until it is fully hardened and set.

USEFUL HINTS: The final effect may depend on the substrate type. Therefore, for heterogeneous substrates, it is recommended to first level and smooth its entire surface with a base coat. In order to avoid colour differences, it is necessary to create a surface constituting a separate architectural whole in one work cycle with material from the same production batch, using the "wet on wet" method. Tools should be cleaned with water immediately after work is completed. The render should be applied and set on dry days at temperatures from +8°C to +25°C. Avoid applying in direct sunlight or during strong winds. In order to protect the unset render against severe weather conditions, it is recommended to use appropriate protective meshes or tarpaulins on scaffolds. **Note:** Low or high temperature, as well as high air humidity, may have a negative impact on the shade of the top coat. Both too high and too low temperature during render application and setting may lead to insufficient setting of the binder. As a result, further contact with water may cause washing out of the unset potassium water glass, which may lead to the formation of durable damp patches or discolouration.