

Soltherm STC-P+

Silicone Exterior Paint with Water Beading Effect

PROPERTIES:

- excellent resistance to the effects of atmospheric factors and microbial growth (alga, fungi)
- water beading effect, high water-repellent properties
- excellent hiding power
- high water vapour permeability

USE:

It provides decorative, renovation and protective paint coats on masonry walls. The hydrophobic and water vapour permeable coating it produces is highly resistant to dirt and dust as well as to atmospheric factors. SOLTHERM STC-P+ is ideal for new constructions and recoating. Suitable for concrete, cement boards, brick walls, cement and lime-cement renders, thin-coat mineral, silicate and silicone renders. Its excellent hydrophobic properties, vapour permeability and weather resistance makes the paint perfect for paint coating of representative and historical buildings. Due to water beading effect or lotus effect, the paint provides a self-cleaning finish coat. Dirt or dust flow off with the rain droplets or a stream of water that fall on the surface. They are washed away by drainage water. The paint constitutes an element of the SOLTHERM insulation systems according to ETA-13/0927.

APPLICATION:

Substrate preparation:

The surface must be sound, even, clean of substances which can cause separation (such as dust, grease, bitumen) free of cracks as well as biological growth and chemical deposits. Surfaces painted with lime or dispersion paints must be cleaned thoroughly to remove the old paint coat. Remove loose, peeling or flaking paint or plaster. Minor irregularities /up to 5 mm/ may be evened out at once with the adhesive SOLTHERM UB (alternatively WB or BC-P as necessary) or with cementitious smoothing compound SOLTHERM SPN. Prior to silicone paint application, prime each surface with the silicone primer SOLTHERM SNP. Drying time under optimal weather conditions (i.e. at +20°C and 60% relative humidity) is min. 4-6h.

PRODUCT PREPARATION:

Packaging contains a ready-to-use product. Immediately prior to application, stir the full packaging thoroughly with an agitator or a low-speed drill and mixer (propeller or jiffy mixer) until a uniform mixture. If necessary thin with up to 10% of fresh clean water.

PRODUCT USE:

Apply by brushing, rolling or spraying of two paint coats over properly prepared surface. Allow first paint coat to dry. Under optimal conditions (temperature +20°C and 60% relative humidity) it should not be less than 4 h. Apply the next paint coat when the first is completely dry. The coating is fully dry after 24 h from the last coat application.

LIMITATIONS:

I) General advice

- To obtain optimal appearance apply on individual wall surface from one end to the other without interruptions with the use of materials from the same batch (see the date of production).
- To avoid lapping, paint should be applied wet-on-wet and under stable weather conditions.
- Before application, organise labour (take into consideration number of installers, their skills, equipment, surface condition and weather conditions) to operate most effectively, ensuring that the planned wall area can be completed in one operation.
- Before application, cover or mask surfaces that are not to be painted.
- During paint application, it is recommended to cover the scaffolding with mesh to protect against unfavourable weather conditions (changes in temperature and humidity or intensity of ultraviolet radiation).

■ Ready to use product, do not add more water than provided herein. Otherwise the product may lose its bonding strength, colour and hiding properties.

II) Substrate preparation:

- Fresh mineral substrates (such as concrete, cement and lime-cement renders) should be allowed to cure for 3-4 weeks prior to substrate preparation and silicone paint application. Completely dry surface is the condition.
- Fresh thin-coat mineral render SOLTHERM MTC should be allowed to cure for 4 days prior to surface preparation operations (including priming) and silicone paint application (under optimal conditions). As optimal conditions we take rainless weather and temperature between +10°C and +25°C.
- Prime porous surface with the silicone primer SOLTHERM SNP prior to silicone paint application. Allow the primed surface to dry (min. 4-6 h when drying under optimal conditions) and start paint application once the surface has dried. As optimal conditions we take the temperature of +20°C and 60% relative humidity.

- Low temperature, increased humidity, improper air circulation and porous surface extend the drying time.
- When spraying the paint, protect eyes and airways, wear protective clothing and follow OHS rules and regulations.
- Spray apply only in windless weather.
- If interruptions during paint coating are necessary, plan for interruptions at a natural break, such as a window, door or corner, in downpipes locations, etc.
- Once the job is completed tightly seal the container and use the remnant paint shortly.
- Clean tools and hands with running water immediately after use.
- After drying difficulties with cleaning may be experienced. Wipe new paint splashes off soiled surfaces with damp cloth.

IV) Paint coat drying:

- Fresh applied paint coating must be protected from precipitation and temperatures below +5°C until completely cured.

PRECAUTIONS:

- Protect skin and eyes during application operations.
- In case of eye contact, flush eyes with plenty of water and seek medical advice.

RECOMMENDATIONS:

- We do not recommend application of intense dark colours on large surfaces with a sunny exposure since increased absorption of solar radiation may result in colour fading and paint film cracking - due to excessive thermal contraction.
- Do not apply to flat areas exposed to prolonged water exposure.
- The paint comes in dark colours and obtains full hydrophobic and water-repellent properties after about a month from application.
- Water beading and self-cleaning effect is obtained when water droplets form on the surface, not wet it but roll down the dry porous surface, taking dirt with them. Dirt particles are unable to hold on the surface and simply runs off with the water droplets that falls on the façade.
- Self-cleaning effect is most efficient on the first contact of the coat surface with water. When the rainfall is long-lasting, the paint coating becomes wet and water does not bead on the surface. After drying, the paint coat becomes fully hydrophobic again and provides a self-cleaning effect.
- It is not recommended to blast clean the paint coat, since it destroys its surface and weakens the self-cleaning effect.

TOOLS:

- Agitator or a low-speed drill (400÷500 rpm) with propeller or jiffy mixer.

■ Depending on paint coating technique: a brush, paint roller or spray gun with a compression sprayer.

TECHNICAL DATA:

Operational parameters:

- Application temperature: from +5°C to +25°C
- Surface temperature: from +5°C to +25°C
- Drying time of one coat: 4 h
- Gloss level: matt
- Resistance to wet scrubbing: > 8000 brush strokes
- Diffusion resistance: $S_d = 0.01$ [m]
- Water absorption coefficient: $w_{24} = 0,05$ [kg/(m²*h_{0,5})]

Product preparation:

- Consistency: thick liquid
 - Colour: white or from the BOLIX Colour Chart
 - Density: approx. 1.45 kg/dm³
 - Consistency: thixotropic
- /all technical data provided for the temperature of +20°C and 60% relative humidity/

COVERAGE:

Yield at one coat application:

- on smooth non-porous surface 0.12±0.20 l/m²,
- on porous surface (e.g.. on SOLTHERM textured renders) 0.20±0.28 l/ m².

To determine precise yield, perform a test patch on the substrate.

Usage is typical usage and may vary between installers. Coverage rates quoted for products will not be guaranteed under any circumstances. The rates quoted are based on site experience but may vary due to site conditions, operator skills etc. No claim will be allowed relating to coverage of materials

STORAGE:

Store in intact original containers in temp. between +5°C and +25°C. Protect from excessive heat and frost. Shelf life of 18 months. Validity date: Date provided on the packaging. Store away from the reach of children.

In conformity with the Directive of the Ministry of Economy (004/42/EC Directive) the product has been classified as A/c/FW. Permissible VOC content 40 g/l (since 01.01.2010). VOC content in the product max 40 g/l.

COMPOSITION:

The paint is thick liquid of faint odour. It is composed of silicone dispersion, fillers, modifiers and pigments.

COLOURS:

- Selected colours from the colour chart BOLIX KOLOR SPEKTRUM 300+.