

Ultrasil HP 1901

Sol silicate facade paint, in accordance with DIN 18363 and without added biocides, reduces the risk of algal and fungal infestation, weather-resistant, matt, for exterior use only



Color System

Field of application

For weather-resistant, highly diffusible facade coatings on load-bearing, mineral substrates, e.g., exterior plaster, Silicate Render HP, sand-lime brickwork, silicate and mineral paint coatings. Particularly for coating historical buildings or listed monuments and as a protective coating in the ETIC system. In conjunction with an adhesion promoting contact coating, e.g., Adhesion Primer ELF 3720 or Silicate-Brush-On Filler 3639, it can also be used on load-bearing, non-elastic, saponification-resistant, matt organic old coatings.

Properties

- Without biocidal additives against algae and fungus (hybrid protect)
- Weather-resistant
- Highly water-vapor-permeable
- Low soiling tendency
- Particularly stable color shades
- Good hiding power
- Mineral properties
- Single-component silicate emulsion paint in accordance with DIN 18363
- With Sol-Xtreme – Sol silicate bonding agent
- Bonds to the substrate by silification
- Protects highly absorbent plasters against excessive water absorption while concurrently allowing high water vapor permeability
- Mineral raw materials and hydrophilic properties typical of silicates ensure a balanced water budget on the facade.
- A nutrient-free, highly alkaline paint substance with a predominantly water-free facade surface has the natural antimicrobial action.

Material description

Standard color shade	0095 white 0096 antique white Light and medium color shades can be mixed with the Brillux Color System. Additional color shades available on request.
Color fastness	Fb code A1, depending on color shade, according to BFS Leaflet no. 26.
Base material	Potassium water glass, silica sol, and organic stabilizers
Organic content	< 5%, in accordance with DIN 18363, 2.4.1.1
Density	Approx. 1.43 g/m ³
pH value	Approx. 11
Reaction to fire	A2 – s1,d0 in accordance with DIN EN 13501-1 ("nichtbrennbar" (non-combustible)), for 0095 white in accordance with classification report no. 230011570-3
Classified in accordance with DIN EN 1062	S1 Grain size fine E3 Dry film thickness > 100 to ≤ 200 µm, depending on system build-up. G3 Degree of gloss matt (optically silk matt surface) V1 Medium water-vapor permeable, s_d (H ₂ O) approx. 0.03 m according to DIN EN ISO 7783. W2 Low water permeability, w-rate < 0.2 kg/(m ² ·h ^{0.5})
Water-vapor transmission rate	$V \geq 2000$ g/m ² d
Packaging	0095 white: 2.5 l, 10 l and 15 l 0096 antique white: 15 l Color system: 2.5 l, 15 l

Use

Thinning	If necessary, can be thinned with a mixture of Fondosil 1903 and water (mixing ratio 1:1).
Tinting	Tintable up to max. 25% with Full Color and Tinting Paint 951. Allow for the fact that the color shades are lighter when dry.
Compatibility	Can only be mixed with materials of the same type and those specified in this Data Sheet.
Application	Ultrasil HP 1901 can be applied using brush, roller and spray application. First-class results that are highly cost effective can be achieved, even with low-overspray airless spraying. There is additional information on this in the 2ns2 Data Sheet.
Consumption	Approx. 130-160 ml/m ² per layer on smooth substrates. For rough surfaces, the consumption increases accordingly. Determine the exact consumption by means of a test application on the object.
Application temperature	Do not apply if air or object temperature is below +8 °C. Do not use under direct sunlight, in high winds or in very high humidity.
Tool cleaning	Clean tools immediately after use with water.

Use

Spray data

Spray system	Nozzle	Spraying angle	Pressure	Thinning
Powerful airless system	0.021–0.027 Inch	40°–80°	Depending on the spraying device and requirements	5-10%

Further information and ordering details for the accessories are available in the “Low-overspray airless spraying 2ns2” Data Sheet.

Drying (at +20°C, 65% relative humidity)

Suitable for recoating and additional system build-up after 12 hours, at the earliest. Silicification is only complete after several days. Allow longer drying times at lower temperatures and/or higher air humidity.

Storage

Store in a cool and frost-free place. Reseal opened containers tightly.

Declaration

Product code BSW40
Comply with the specifications in the current Safety Data Sheet.

Coating build-up

- Substrate preparation**
- The substrate must be solid, dry, clean, load-bearing, and free from efflorescences, sintered layers, separating agents, corrosion-promoting components, or other intermediate layers affecting the adhesion.
 - Remove fine-grained layers on concrete surfaces mechanically or by means of pressure washing.
 - For exposure to moisture, rapid water drainage must be ensured.
 - Protect horizontal surfaces in a constructive manner. (e.g. by covering them) Check existing coatings for their suitability, load-bearing capacity, and adhesive properties.
 - Thoroughly remove defective and unsuitable coatings and dispose of them in accordance with the applicable regulations.
 - Clean surfaces infested with fungi and algae thoroughly and then treat them with Universal Disinfectant 542 *. (*Use biocide products with care. Always read the label and product information before use.).
 - Treat replastered areas with a fluorine primer correctly, over the entire area for colored coatings.
 - Apply a prime and/or intermediate coat to the substrate as required. Re-prime filled areas.
 - Replaster large areas of damage on substrates.
 - See also VOB Part C, DIN 18363, Section 3.

First and renovation coats

Substrates ¹⁾	Prime coat	Intermediate coat	Top coat
Silicate Render HP ²⁾			2x Ultrasil HP 1901
Untreated, normal and low-absorbent substrates, e.g., exterior plaster (compressive strength category CS I–CS IV) ³⁾	A mixture of Fondosil 1903, water and Ultrasil HP 1901 in a ratio of 1:1:1	If filling and crack-filling properties are required, Silicate-Brush-On Filler 3639	
Strongly and irregularly absorbent substrates, e.g., sandind exterior plasters (compressive strength category CS I–CS IV) ³⁾ , sand-lime brickwork, absorbent intact mineral coatings	2x wet in damp with Fondosil 1903, 1:1 water-diluted		
Load-bearing, non-elastic, saponification-resistant, matt organic old coatings	Depending on the individual requirements, Adhesion Primer ELF 3720 or Silicate-Brush-On Filler 3639		

¹⁾ To coat untreated, asbestos-free cement fiber boards, we recommend Evocryl 200 or Silicon Facade Paint 918. To coat asbestos-cement facade cladding, comply with the information in the “Coating systems for asbestos-cement facade claddings 2as” Data Sheet.

²⁾ For colored implementation, use the Silicate Render HP tinted to the coordinating color shade.

³⁾ Minimum compressive strength > 1.5 N/mm²

Notes

Mask surfaces

Mask the surroundings of the surfaces to be coated carefully, especially glass, brick and natural stone.

Contiguous surfaces

Only use material from the same batch on contiguous surfaces or mix the required material quantity.

Repairs

Surface repairs become more or less evident depending on the object situation. This is unavoidable, according to BFS Leaflet No. 25, item 4.2.2.1, Para. e.

New mineral substrates

Only coat new mineral substrates, in particular plaster surfaces (MG PII, PIII), once curing and drying is complete, after 14 days at the earliest; even better, after 4 weeks. Depending on the weather and time of year, the drying process can also take some time.

Cracks and damage

Fill cracks and indentations with a fillable mix of silicate paint and quartz sand, to be flush with the surface.

Surface irregularities after drying

Due to the chemical curing process, depending on the weather conditions, color shade and surface irregularities are typical, they do not represent any technical or functional flaws and therefore do not justify a complaint.

Avoiding copper streaks	Copper ions dissolved in water from, e.g., covers and cables can react with the contents of the coating and lead to brownish/yellowish discolorations. For this reason, copper components should be protected against oxidation or designed in such a way that any water run-off is diverted away from the facade.
Coating protection	Protect fresh, not-yet-dry silicate coatings from moisture impact, e.g., rain, but also from excessively rapid dehydration, e.g. from strong winds, direct sunlight, etc. Do not apply to heated-up substrates. If necessary, use protective tarpaulins.
Protects against algae and fungi	The risk of algae or fungal attack is reduced, by the selected, nutrient-free, mineral raw materials and the even water balance. Always apply Ultrasil HP 1901 in sufficient layer thickness, we recommend at least two coats. The current level of technical development cannot ensure permanent prevention of algal and fungal infestation.
Glossy streaks in the event of early exposure to moisture	If exposed to moisture too soon after application (condensation or rain), water-soluble wetting agents concentrated on the coating film can be released and appear as glossy streaks on the coating surface. If such streaks occur, do not immediately recoat the surfaces. The water-soluble additives are washed away automatically in the event of further moisture (rain). Nevertheless, if immediate recoating is to take place, thoroughly wash away the streaks or traces with water beforehand. To prevent such streaks, coating work should only be performed under suitable weather conditions.
Constructive protection	Roof overhangs and sufficiently dimensioned covers extend the service life of facade coatings. Missing drip edges or excessively small drip edge separations can (according to BFS Leaflet No. 9, Section I) lead to visible streak marks and soiling on facades, parapets, etc., in a relatively short time.
Further information	Follow the instructions on the data sheets of the products used.

Remark

This Data Sheet is based on extensive development work and years of practical experience. The translation corresponds to the current German version, in compliance with the German laws, regulations, standards and guidelines. Its content does not constitute a contractual legal relationship. The user/buyer is not released from the responsibility of checking our products to ensure they are suitable for the intended application. In addition, our general terms of business apply.

When a new version of this Data Sheet with updated information is published, the previous version no longer applies. The current version is available on our website.

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