

Product features

- 2K-PU-special lacquer, water-based, colourless, high matt effect
- Water vapour permeability class 2 (S_d -value: 0,46 m)
- Hydrophobic and protects from contaminations (also in general contaminations on facades, such as road-salt, dog urine, etc.)
- Increases the value preservation of the object
- Extremely resistant film-forming anti-graffiti-lacquer
- RAL-certified as a permanent protection lacquer with at least 15 cleaning cycles
- UV- and weather stabel
- Proven fire behaviour (class E)
- Applicable on ETICS as functional paint
- Coating-, rolling- or spraying application
- Ordinary contaminations are easy to clean (Scheidel UltraFix Intensive-Cleaning Concentrate 1:10 diluted with water)

Scope of application

- Already painted and varnished surfaces
- Painted ETICS, plaster and concrete surfaces
- Tiles and synthetic surfaces
- Facades and indoors

Technical limits

Absorbent and highly absorbent as well as highly alkaline substrates (check pH-value). Coarse-grained (grain size over 2 mm) and pointed plasters are only suitable **to a limited** extent (due to covering of the grain peaks). On facade paints with a lightness value of 20 and lower, the correct technical structure of the substrate must be considered. Not suitable for use on exposed concrete and purely mineral surfaces. For this purpose, the graffiti impregnations of Scheidel Fluoromer® Graffiti Protection Impregnation Sandstone, Fluorosil® Traffic Graffiti Protection Impregnation BAST or Fluorosil® Premium Graffiti- & Surface Protection Impregnation are available.

Technical information

Density (mixture) at 20°C:	1,08 kg/l
Appearance:	Colourless
Gloss level:	Matt (<10 GU 85° on smooth surfaces)
Binding agent basis:	PU, aqueous
Chemically resistant:	after 7 days
Mixing ratio:	2,75 : 1 (resin/hardener, volume parts)
Solid content:	50 weight %
pH-value:	8,1
VOC:	< 140 g/l (2004/42/EG Decopaint-guideline), contains max. 110 g/l
Storage:	1 year, dry, cool and frost-free in closed, original containers
Consumption rate (in total):	180 – 200 ml/m ²
Packaging (resin & hardener):	Testset 450 ml / 0,9 l / 5 l
Article number:	3880 (resin), 3881 (hardener)

Tests: S_d -Wert:0,46 m at 200 ml/m² wet lacquer quantity / CO₂-permeability: carbonation reducing/fire behaviour: Class E
Normally flammable/UV-stability: Tested with Xenontest 2000 hours without defects, RAL certified: Test report no.: 14-2192

Application

Substrates general overview: Facades, underpasses, interiors (with good ventilation), emulsion paints, silicone resin paints, silicate paints conditionally, latex paints, ETICS (polystyrene), synthetic resin plasters (additional leveling coat required unless repainted), painted concrete, powder coatings, plastic surfaces, painted dimensionally stable wood surfaces.

Processing

Test areas: Test areas show the visual change of the surface when applying HydroPurSilan®. On smooth, varnished surfaces (especially powder coatings) an adhesion test by cross-cut or pull-off test is necessary after 7 days hardening. Test areas must **always** be created, as visual changes might occur, especially on intensive and dark colour shades. The approval by the principal is highly recommended.

Application: Depending on the surface HydroPurSilan® should be applied with microfiber rollers, orel mix bristles (especially for water-dilutable lacquers), cross-wise (e.g. on small areas such as doors, balcony parapets etc.). Processing must always be carried out evenly and carefully.

Always apply HydroPurSilan® twice. Special instructions must be noted! (see back side). **Test areas:** Test areas provide information about the optical change of the surface by HydroPurSilan®. On smooth, painted surfaces (especially powder coatings), an adhesion test by cross-cutting or peel test is required after 7 days of curing. Test areas must **always** be created, as optical changes may occur (especially with intensive and dark color shades). Approval by the customer is always recommended. **Application:** HydroPurSilan® should be applied, depending on the substrate, with microfiber rollers, Orel Mix bristles (especially for water-dilutable paints), in a cross-coat (e.g. for small areas such as doors, balcony parapets, etc.), whereby **care must be taken to ensure uniform finishing and careful application. HydroPurSilan® is always applied twice. Special instructions must be observed! (see reverse side).**

Varnishing Rollers – Accessories for HydroPurSilan®:

by Friess-Techno-Profi GmbH	Pile Height/Roller Width	Item-No.	Item-No.: Friess-Techno
Rollers for smooth and slightly structured substrates up to 1mm granulation	5/12	470	673312
	5/25	471	613325
Rollers for structured substrates from 1mm granulation	8/12	472	673512
	10/25	473	613525

Practical tip: Use only microfiber short-pile rollers from Scheidel/Friess-Techno (or similar). This will give you an optimum coating pattern and keep to our consumption statements. The tool must be washed out under running water immediately after use. The rollers can no longer be used after the pot life and must be disposed. They can no longer be completely cleaned, even with solvents.

Spraying Process: Application with Airless- or HVLP-spraying method is possible. **Airless:** Nozzle bore 0,279 – 0,330 mm or 0,011 – 0,013 inch, spray pressure 150 – 200 bar or with **HVLP:** Nozzle 2,0 – 2,5 mm, air pressure 2–3 bar. Clean spray guns immediately with water and rinse thoroughly with the DD-Equipment Cleaner from Scheidel. **Pot life/Processing time: At 20°C:** Max. 1,5 hours, at **25°C:** Max. 1,0 hours

Caution: At the end of the pot life, skin formation may occur due to the reaction of the 2-component system. Do not continue processing, whitish "specks" may appear on the surface. Do not leave mixed product in the sun! In case of sudden rain, stop work immediately and protect the already coated surfaces (e.g. cover with tarpaulins). This also applies during the drying of the coating system, otherwise irreversible "white tarnishing" of the coating will occur.

Mixing procedure: 1. After opening, stir the **resin** thoroughly with a wooden stirring rod (stir in all adhesions to the base and side walls). Then stir with an electric stirrer or whisk until a homogeneous consistency is obtained. 2. Then add **hardener** while stirring (electric stirrer or whisk) and stir until a uniform, homogeneous consistency is obtained. Repotting of the mixture with repeated stirring is recommended. During processing of the product, stir the paint regularly with a stir stick. In case of **partial quantities**, proceed as described above and always close containers immediately. **Mixing ratio:** 2.75 : 1 (resin/hardener, volume parts - converted 110 ml resin with 40 ml hardener = 2.75 : 1). Use only the corresponding hardener (Art. No. 3881). HydroPurSilan® is adjusted ready for use in the mixed state. **Processing conditions:** The substrate must be absolutely dry, clean and load-bearing before processing. Clean contaminants such as oil, grease or dust with Scheidel UltraFix Intensive-Cleaning Concentrate and rinse with water. **Temperature/humidity/drying times:** Relative humidity during application: ≤ 80%, Application and substrate temperature: ≥ 10°C - ≤ 25°C. The surface temperature of the substrate must be at least 3°C above the dew point to avoid condensation (dew point table see www.scheidel.com). If the application temperature and substrate temperature are too high or too low, stains or streaks may occur and optimum adhesion to the substrate is not ensured. The substrate temperature must be checked before starting work. **Drying:** HydroPurSilan® is dust-dry at 20°C after approx. 3 hours, at 10°C after at least 5 hours, completely dry after 24 hours. **Second coat (2. application): At 20°C at the earliest after 12 hours, at 10°C at the earliest after 24 hours. Ideally the second coat should take place after 48 hours.** HydroPurSilan® is fully cured after 7 days and chemically (graffiti-) resistant.

Special instructions:

If possible, dark paint areas should be protected from direct sunlight. Always roll out HydroPurSilan® to zero. Do not cut surfaces previously, but immediately coat the surface wet in wet. Exclusively use the recommended rollers for the application. If HydroPurSilan® was applied too thick, white paint spots (especially on dark, intensive colours) appear. If too much lacquer has been applied, then remove it with the roller (during application). At high temperatures and dark colours the mixed product can be diluted with water (max. 5%).

Instructions regarding application:

ETICS/plasters: Suitable for use on both polystyrene ETICS and mineral wool ETICS as a functional coating. If necessary, the overall structure of the building shell must be considered, considering the Sd-value of HydroPurSilan®. Plasters of mortar group PIC, PII and PIII, silicate finishing plasters, synthetic resin and silicone resin plasters with coating are suitable. **Primer coat/equalizing paint:** No primer is required for HydroPurSilan®, this is replaced by the equalizing paint to produce a uniform appearance. In principle, all plasters must be provided with a new coat or equalizing paint based on high-quality dispersion, silicone resin or latex paints after they have dried completely (usually at least 2 weeks at 20°C) before HydroPurSilan® is applied. The choice of binder must be matched to the respective plaster substrate and sufficient drying must be ensured. The choice of equalizing paint influences consumption and appearance. **Silicate paints:** Wait for the silicate paint to set completely (usually 28 days), pH-value of the surface <9. Avoid moisture penetration behind the silicate paint coat (hydrophobized adjacent surfaces).

Consumption: 1 mm grain size: 1. coat ca. 120 ml/m² - 2. coat ca. 60 ml/m²

from 1 mm to max. 2,5 mm grain size: 1. coat approx. 120-140 ml/m² - 2. coat approx. 70 ml/m²

Concrete or fibre-cement plates (coated): Preferably pure acrylate is applied as a primer. Consumption HydroPurSilan®: 70-80ml per coat

Wet lacquers, powder lacquers, Resopal, tiles and other dense substrates: Test areas **must be created**, allow to dry for at least 7 days, only then carry out adhesive tests. Depending on the characteristics of the substrate (especially with regard to powder coatings) HydroPurSilan® adheres differently well. To improve adhesion (especially with regard to powder coatings) it is recommended to roughen the surface. Alternatively, Eposilan® protective lacquer from Scheidel is available (test areas must be created). Consumption of HydroPurSilan®: 70-80 ml/m² per coat

Special areas – designed artworks, graphics etc.: Generally, HydroPurSilan® is suitable for protecting artworks. Create test areas.

Concrete or fiber cement boards (painted): Preferably, pure acrylate is used as a primer. Consumption HydroPurSilan®: 70-80ml per coat.

Wet coatings, powder coatings, Resopal, tiles and other dense substrates: It is mandatory to create test areas, allow to dry for at least 7 days, only then carry out adhesion tests. The adhesion of HydroPurSilan® varies depending on the properties of the substrate (especially powder coating). For improved adhesion (especially on powder coatings), grinding is recommended. Alternatively, Scheidel Eposilan® Protective Varnish 2K Gloss is available (also in this case it is important to create test areas). Consumption HydroPurSilan: 70-80 ml/m² per application.

Special surfaces – designed artwork, graphics, etc.: HydroPurSilan® is generally suitable for protecting works of art. Create test areas.

Glazed and painted wooden components: HydroPurSilan® is basically suitable for the protection of glazed or painted dimensionally stable wooden components. The substrate must be free from separating substances, stable and clean. The wood moisture content should not exceed 13% and the principles of structural wood preservation must be observed. Always create test areas and check adhesion.

Graffiti removal

Graffiti removal from HydroPurSilan® is more or less complex depending on the type of substrate and graffiti. Due to the wide variety of spray paints and pens, it may be necessary to use different graffiti removers despite the film-forming protective coating. The following Scheidel graffiti removers should be used for the cleaning test: **Cocopaste® Bitumen & Graffiti Remover - C6 Gel Graffiti Remover - MineralClean Combi Pack** (= 500ml Liquid Graffiti Remover + 1l Cracker Gel Remnant & Graffiti Remover in a box) - **Oxydizer Gel Pen- & Pigment Bleach**. The given order shows the least attack of the cleaners against HydroPurSilan®. Apply graffiti remover generously and **massage in** (with soft brush or paintbrush) and allow to work **for max. 15 min.** Remove dissolved graffiti with a cloth, if possible. Repeat the process if necessary. Then wash off with Scheidel UltraFix Intensive Cleaning Concentrate (mixed) or with a hot water HD cleaner (note: set max. 60°C on the unit, nozzle distance min. 40cm). Alternatively: Spray Scheidel Liquid Graffiti Remover onto a cloth and rub into the graffiti. Allow to react for a short time and wipe off with a clean cloth or paper towels and rinse with Scheidel UltraFix Intensive-Cleaning Concentrate diluted with water. Avoid direct sunlight during graffiti removal. **Note:** There is no anti-graffiti protective coating on the market that **always** provides 100% graffiti removal. It should also be noted that the protective effect of the protective coating decreases over time. In the case of very rough substrates, no permanent protective effect of 15 cleaning cycles can be guaranteed due to the grain peaks.

Revision

HydroPurSilan® on painted and varnished surfaces: After appropriate substrate preparation, a new coating structure can be produced. **HydroPurSilan® on varnished surfaces:** If possible, sand and leach with UltraFix 1:3, depending on the roughness, use an adhesion primer for paints. **HydroPurSilan® on painted surfaces:** Apply UltraFix 1:3, allow to react for at least 5 min., rub in, then wash with water and paint with bonding primer (microquartz) (alternatively roughen HydroPurSilan® by microblasting). No general liability is assumed for the reworking due to different practical conditions.

Danger note

The current safety data sheet is decisive. If required, please request by e-mail: info@scheidel.com

General: Always wear suitable protective gloves/protective clothing/eye protection/face protection May cause allergic skin reactions. Product contains isocyanates. During processing, the safety data sheet, the BG RCI leaflet M 044 "Polyurethanes/ Isocyanates" and the TRGS 430 "Isocyanates" must be observed.

Scheidel Anti-Graffiti- & Surface Protection System

	Concrete, architectural concrete, clinker, hard natural stone	Limestone, tuff, and other more absorbent mineral surfaces	Painted surfaces on plasters (ETICS), varnish and powder coating, concrete coats, non-absorbent glossy substrates	Silicate and sol silicate paints
Anti-graffiti impregnation with C6 technology	Fluorosil® Premium Fluorosil® Traffic	Fluoromer® (semi-permanent)		Fluorosil® Premium (only for insoluble silicate colours)
Hydrophobization with permanent graffiti protection	HydroGraff® OS-A AGS	HydroGraff® OS-A AGS		
Anti-graffiti protection varnish permanent			Eposilan® PLUS Protective Varnish 2K Gloss or HydroPurSilan® Protective Varnish 2K Matt	HydroPurSilan® Protective Varnish 2K Matt
Anti-graffiti protection with sacrificial layer	SPS 40 Polysaccharide oder Wax	SPS 40 Polysaccharide oder Wax		

All details in this technical information are based on practical experience. A general binding character is excluded because of the different practical preconditions. Self-tests have to be made. All earlier editions get void with the publishing of this technical information.

11.03.2020