erstophob
WATER AND OIL - **REPELLENT**

TECHNICAL
DATA SHEET

Transparent functional surface seal with anti-graffiti, Easy-to-Clean and corrosion protection properties

INDUSTRIAL PROTECT

PRODUCT DESCRIPTION

erstophob Industrial Protect is a transparent, ready-to-use functional surface seal based on organic polysilazane technology.

The product has been developed to protect suitable smooth and non-absorbent surfaces against graffiti, soiling, weathering and corrosive exposure.

Following application, a very thin, permanent barrier layer is formed. This chemically bonds to suitable substrates and cures under the influence of atmospheric moisture, even at room temperature.

The functional surface seal reduces the adhesion of dirt and coating materials and thereby provides pronounced Easy-to-Clean properties. Suitable coated surfaces can be cleaned repeatedly without requiring complete resealing after every cleaning cycle.

PROPERTIES & BENEFITS

erstophob Industrial Protect is characterised in particular by:

- permanent, transparent surface sealing
- pronounced anti-graffiti properties
- Easy-to-Clean effect
- corrosion protection on suitable metallic surfaces
- high substrate adhesion
- high UV resistance
- high chemical resistance
- protection against weathering and environmental exposure
- reduced dirt adhesion
- high coverage due to very low material application
- curing at room temperature
- optional thermal curing
- ready-to-use formulation
- fluorine-free

Actual performance depends on the substrate, surface preparation, application, film formation, curing and subsequent exposure conditions.

AREAS OF APPLICATION

erstophob Industrial Protect is intended in particular for industrial, technical and infrastructure applications on suitable smooth and non-absorbent surfaces.

Typical applications include:

- tanks and industrial installations, indoors & outdoors
- traffic signs
- ventilation systems
- technical installations and components
- aluminium wheels
- metal structures
- painted industrial surfaces
- GRP components
- suitable polished natural stone surfaces

GEEIGNETE UNTERGRÜNDE

Suitable substrates include in particular:

- one-component and two-component coating systems
- polyurethane coatings
- epoxy coatings
- polyester paints and coatings
- GRP
- aluminium
- steel
- stainless steel
- zinc

- copper
- brass
- bronze
- other suitable alloys
- polished marble
- polished granite

Actual suitability depends on the material, surface condition, existing coating and subsequent exposure.

Test areas or sample coatings must be prepared before large-scale application.

SUBSTRATE PREPARATION

The substrate to be sealed must be:

- clean
- free from grease
- free from substances that may impair adhesion
- completely dry

Particular attention must be paid to areas that are difficult to access, such as cavities, joints, recesses or drainage channels. Any residual moisture in these areas must be completely removed prior to coating, for example using suitable absorbent cloths or dry compressed air.

Moisture on the substrate must be avoided.

If the polysilazane comes into contact with a damp substrate, it may react prematurely. This can impair the uniform formation of the permanent functional seal.

Material compatibility and adhesion must be checked on a test area prior to application.

APPLICATION CONDITIONS

The following guideline values apply:

Substrate temperature:
+5 °C to +30 °C

Relative humidity:
30% to 80%

Application must be carried out in dry conditions.

Do not apply:

- in rain
- to damp surfaces
- in direct intense sunlight
- outside the recommended temperature and humidity ranges

Application should only be carried out by suitably instructed personnel.

PRODUCT APPLICATION

erstophob Industrial Protect is supplied **ready for use.**

Dilution is not intended.

Depending on the substrate and component geometry, the product may be applied using:

- microfibre applicators
- suitable paint rollers with microfibre flocking
- HVLP spray application

The seal must be applied thinly and evenly.

Excessive material application should be avoided.

HVLP-SPRITZVERFAHREN

Method:	**HVLP compressed-air spraying**
Spray gun:	**e.g. SATA minijet HVLP**
Working pressure:	**approx. 2–3 bar**
Nozzle size:	**approx. 0.8–1.3 mm**

The suitability of the selected spray equipment must be checked under the specific site and application conditions before work begins.

Spray equipment may, for example, be cleaned after use with **n-butyl acetate.**

The relevant safety requirements must be observed.

COVERAGE

Average material consumption is: **approx. 15 ml/m²**

This value is a technical guideline and may vary depending on the substrate, application method and surface geometry.

The material application rate should not be significantly exceeded.

The performance of the system is based on a controlled, very thin coating layer.

APPLICATION INSTRUCTIONS

During application, only small quantities of material should be transferred from the original container into a separate, clean working container.

Unused material from the working or dispensing container must not be returned to the original container.

This prevents moisture, contamination or foreign substances from being introduced into the original material.

Ensure that:

- application tools are completely dry
- no traces of water are introduced into the product
- contaminated application tools are replaced promptly
- used or contaminated material is not returned to the original container

Damp or water-contaminated applicators must not be used.

If contamination becomes visible on application tools during the coating process, these must be replaced to prevent inclusions or contamination within the seal.

If the material in the working container begins to gel or visible precipitation occurs, it must no longer be used.

Material that is no longer usable must be disposed of appropriately.

REWORKING

Defects may be corrected under suitable conditions for approximately 10 minutes after application.

As the reaction progresses, the surface increasingly develops its repellent properties.

Subsequent recoating may therefore become difficult or no longer possible.

Application should therefore be carried out in controlled sections.

DRYING & CURING

Under suitable conditions, erstophob Industrial Protect is:
touch-dry after approx. 1 hour.

The following guideline values apply for achieving weather resistance:

Curing conditions	Guideline value
Room temperature	approx. 8–12 hours
80 °C	approx. 2 hours
130–180 °C	approx. 1 hour

Full performance of the seal is achieved after approximately:
5–7 days when cured at room temperature.

Actual curing times may be influenced by temperature, humidity, substrate and ambient conditions.

THERMAL CURING

For metal surfaces such as:

- aluminium
- steel
- stainless steel

thermal curing at temperatures above 80 °C may be used to optimise substrate adhesion.

This is subject to the substrate, existing coatings, component and process being suitable for the respective temperature exposure.

CLEANING & MAINTENANCE OF COATED SURFACES

For routine cleaning of surfaces sealed with erstophob Industrial Protect, suitable cleaning agents within the following pH range are recommended: pH 3–12

Strong mineral acids and strongly alkaline cleaning agents should be avoided.

Due to the Easy-to-Clean properties, suitable neutral cleaning agents are sufficient for effective cleaning in many applications.

GRAFFITI REMOVAL

Graffiti should be removed from the sealed surface as soon as reasonably possible.

Suitable commercially available graffiti removers may be used for cleaning.

Before using a cleaning agent or graffiti remover for the first time, its suitability should be tested on an inconspicuous area.

PROTECTION & SAFETY

erstophob Industrial Protect must only be used in accordance with this Technical Data Sheet, the product labelling and the current Safety Data Sheet.

The personal protective measures and occupational safety requirements specified therein must be observed during application.

Particularly for spray applications, suitable technical ventilation and personal protective equipment must be provided in accordance with the current Safety Data Sheet.

Ignition sources must be avoided during application and drying. Always observe the product labelling and Safety Data Sheet before use.

TECHNICAL DATA

Property	Value
Appearance	Liquid
Colour	Colourless to pale yellow
Binder base	Organic polysilazane
Solvent base	n-butyl acetate
Density	approx. 0.92 g/cm³
Flash point	< 21 °C
Consumption	approx. 15 ml/m²
Substrate temperature	+5 °C to +30 °C
Relative humidity	30–80%
Touch-dry	approx. 1 hour
Weather-resistant at room temperature	approx. 8–12 hours
Full performance	approx. 5–7 days at room temperature
Curing mechanism	Reaction with atmospheric moisture
Product condition	Ready for use
Technology	Polysilazane-based functional surface seal
Fluorine	Fluorine-free

PACK SIZES

Technical reference pack sizes:

100 ml | 250 ml | 500 ml | 1,000 ml | 5,000 ml

Actual ERST pack sizes are subject to the current product range.

IMPORTANT INFORMATION

- Do not dilute the product.
- Do not mix with other materials or coatings.
- Avoid contact of the uncured product with water or moisture.
- Use only completely dry application tools.
- Do not return material residues from working containers to the original container.
- Always prepare a test area before application.
- Check substrate and material compatibility in advance.
- Avoid direct sunlight during application.
- Do not apply in rain or to damp surfaces.
- Application must only be carried out by instructed personnel.
- Dispose of unusable or gelled material appropriately.

TECHNICAL SERVICE

Our technical application team provides support with questions relating to:

- substrate suitability
- surface preparation
- application
- curing
- cleaning
- product-specific processing properties

The technical information contained in this Data Sheet is based on our current knowledge and practical experience.

Due to variations in substrates, site conditions and intended applications, this information does not release the user from the responsibility to assess the suitability of the product for the intended purpose.

Applicable statutory and regulatory requirements, as well as third-party rights, must be observed.

Test areas must always be prepared on critical or unknown substrates.

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