

PRODUCT DATA SHEET

Sikagard®-850 Clear

Permanent Clear Anti-graffiti and Anti-fly Poster Coating

PRODUCT DESCRIPTION

Sikagard®-850 Clear is a one-part ready to use, polyorganosiloxane based, permanent anti-graffiti and anti-fly poster semi-matt coating. This product is part of the Sikagard® Anti-graffiti System.

USES

As a permanent anti-graffiti and anti-fly poster coating on the following substrates:

- Fair faced concrete, masonry, cementitious render.
- Coated concrete, masonry, cementitious render.
- Coated concrete, masonry, cementitious render previously treated with a hydrophobic impregnation.
- Coated or uncoated wood.

Suitable for:

- Moisture control (Principle 2, method 2.3 of EN 1504-9).
- Increasing the resistivity (Principle 8, method 8.3 of EN 1504-9).

CHARACTERISTICS / ADVANTAGES

- Ready to use - no dilution with solvent necessary at the job site.
- Permanent - graffiti can be typically removed more than 50 times without damaging the protection, or requiring a refresher coat, when using non-aggressive cleaning techniques.

- Poster prevention – fly poster does not bond onto protected substrate or can be easily removed, even after many cleaning cycles.
- Semi-matt aspect. Clear aspect when using the fair-faced concrete build-up.
- No chemical agents required for cleaning.
- Cleaning requires only cold-water pressure (80 to 100 bar) or cold-water low pressure washing and rubbing down with a clean cloth or scrubbing brush.
- Water vapour permeable.
- Complies with the requirements of EN 1504-2 as protective coating.
- Low water absorption.
- Very good resistance against weathering and ageing.
- Good resistance to UV exposure.
- Applied by brush, roller or airless spray.
- Very low dirt pick-up.

APPROVALS / STANDARDS

- CE marking and Declaration of Performance (Ref. 31191591) based on EN 1504-2:2004 Products and systems for the protection and repair of concrete structures — Surface protection systems for concrete — Coating.
- Adhesion after thermal compatibility EN 13687-1:2002 (100 cycles of freeze and thaw with de-icing salts) and EN 13687-2:2002 (10 cycles of thunder shower) - Applus Laboratories, Spain, Report Nber 21/32304762.
- 50 cleaning cycles UNE-EN ISO 2409, Sikagard®-552 W + Sikagard®-850 Activator + Sikagard®-850 Clear, Applus, No. 23/32304334.
- 50 cleaning cycles UNE-EN ISO 2409, Sikagard®-850 Primer + Sikagard®-850 Clear, Applus, No. 22/32306109.

TECHNICAL INFORMATION

Freeze Thaw De-icing Salt Resistance	≥ 1.8 MPa No bubbles, cracks or surface defects after weathering. Tests were performed after 100 cycles instead of 50 cycles as required by EN 1504-2.	EN 13687-2
Permeability to Water Vapour	$S_D = 0.28$ m Conforms to Class I (<5 m)	EN ISO 7783-1/2
Capillary Absorption	$0.0026 \text{ kg/m}^2 \cdot \text{h}^{0.5}$ NOTE: "a" of Table 5 of EN 1504-2: "When the capillary absorption to water is $< 0.01 \text{ kg/m}^2 \cdot \text{h}^{0.5}$ the diffusion of chloride ions is not to be expected".	EN 1062-3

PRODUCT INFORMATION

Chemical Base	Polyorganosiloxanes polymer and solvent
Packaging	5 and 20 kg containers (refer to current price list for packaging variations).
Shelf Life	12 months from date of production.
Storage Conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +35 °C. Always refer to packaging.
Appearance / Colour	Final applied finish: Semi-matt / clear. NOTE: 'Fair Face System' will result in a clear aspect, similar in appearance to the untreated substrate.
Density	$\sim 0.92 \text{ g/cm}^3$
Viscosity	$\sim 580 \text{ mPa}\cdot\text{s}$ (at +20 °C) $\sim 430 \text{ mPa}\cdot\text{s}$ (at +40 °C)
Volatile organic compound (VOC) content	$\sim 350 \text{ g/L}$ (calculated)

SYSTEM INFORMATION

System Structure	System Component	Product
	Primer for Uncoated Mineral Substrates	Sikagard®-850 Primer
	Primer for Coated Mineral Substrates or Coated Wood	Sikagard®-850 Activator
	Top Coat	Sikagard®-850 Clear

When applied to bare mineral surface, Sikagard®-850 Clear may provide a wet look effect. To reduce/eliminate this effect, the following build-up is recommended (known as the 'Fair Face System'):
Sikagard®-552 W Aquaprimer + Sikagard®-850 Activator + Sikagard®-850 Clear.

APPLICATION INFORMATION

Consumption	NOTE: Generally, one coat is sufficient on a suitably prepared, uniform and primed substrate. Top Coat: ~ 125 to 250 g/m^2 These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.
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Layer Thickness	~140 to 270 µm (wet film thickness)	
Ambient Air Temperature	+8 °C minimum / +35 °C maximum	
Relative Air Humidity	≤ 80 %	
Dew Point	Substrate and ambient temperature must be at least +3 °C above dew point.	
Applied Product Ready for Use	Final Drying	Up to ~24 hours at +20°C for thick film build-up
	Full Cure	~7 days
Times are approximate and will be affected by film thickness and changing ambient conditions particularly temperature and relative humidity. Anti-graffiti and anti-poster protection is achieved as soon as the coating has dried out (~24 hours).		

VALUE BASE

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- Sikagard®-850 Clear is intended for use in industrial and commercial applications where personal protective equipment is required and mandatory.
- Do NOT use for aerosol-based applications. Sikagard®-850 Clear applied using this application, disperses free aerosol vapour droplets in the air. Breathing in these droplets can cause extremely serious health risks to the user.
- When the container is opened, any remaining product inside the container that has been exposed to the air, will continue to cure and thicken resulting in surface skinning and increased viscosity. It is therefore advised to use up all the product once it is opened until the container is empty.
- The product can be used after a few days of opening the container, providing the skin layer is removed.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

APPLICATION

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

IMPORTANT

Existing coatings must be tested to confirm their compatibility with Sikagard®-850 Activator and Sikagard®-850 Clear.

PRIMER / ACTIVATOR

IMPORTANT

On rough substrates, use a brush to apply Primer and make sure the Primer covers all the surface including voids.

IMPORTANT

Allow the Primer surface to dry and become tack-free before applying the top coat (~2 to 3 hours, depending on weather conditions).

IMPORTANT

Allow Sika® MonoTop® mortars to cure for 3 to 5 days before applying Primer.

Substrate (Mineral) Without Existing Coating or Hydrophobic Impregnation (including Sika® MonoTop® products)

1. Apply Sikagard®-850 Primer evenly over the prepared substrate at the required consumption rate. Always refer to Product Data Sheets.
2. The Primer must be continuous and pore ('holiday') free.

Substrate (Mineral or Wood) with Existing Coating / Lasure

1. Apply Sikagard®-850 Activator evenly over the prepared substrate at the required consumption rate. Always refer to Product Data Sheets.
2. The Activator must be continuous and pore ('holiday') free.

Substrate with Hydrophobic Impregnation

1. Prime with Sikagard®-850 Primer evenly over the prepared substrate at the required consumption rate. Always refer to Product Data Sheet.
2. The Primer must be continuous and pore ('holiday') free.

Wood (Uncoated)

No priming is required.

To Achieve the 'Fair Face System'

1. Apply a thin, even layer of Sikagard®-552 W Aquaprimer to reduce the 'wet-look' resulting finish. Do NOT use thick pile rollers or brushes to apply, as excessively thick application can result in unsightly white stains. Always refer to Product Data Sheets.
2. Apply Sikagard®-850 Activator evenly over the prepared substrate at the required consumption rate. Always refer to Product Data Sheets.
3. The Activator must be continuous and pore ('holiday') free.

TOP COAT

IMPORTANT

If applied over the Primer or Activator, refer to appropriate drying time / waiting time before overcoating.

Application by Brush or Medium to Long Hair Roller

1. If required, mix the coloured pigment into the product until fully dispersed and a uniform colour is achieved.
2. Apply the Product evenly over the surface.
3. The coating must be continuous, pore ('holiday') free and to the required surface finish.
4. Protect the freshly applied coating from heavy rain or rain showers until dry to prevent surface damage.

Application by Airless Spray

IMPORTANT

Do NOT use aerosol car body type spraying equipment.

NOTE: The airless spray may not give a smooth or acceptable finish. It may be necessary to back-roll the coating with a roller to ensure a suitable finish and film build-up.

Requirement: Airless spraying characteristics:

- Pressure: 220 to 250 bar (3200 to 3600 psi).
 - Hose diameter: ~10 mm (3/8").
 - Tip size: 0.013" to 0.017" (0.33 to 0.43 mm).
 - Fan width: selected accordingly for the tip size (e.g. 6" or 8" for 0.013" tip, 8" or 10" for 0.015" tip, and 10" for 0.017" tip).
 - Sprayer: should be selected appropriately for the tip size.
 - Filter: 60 mesh.
1. If required, mix the coloured pigment into the product until fully dispersed and a uniform colour is achieved.
 2. Spray apply the Product in a continuous operation and at a speed to achieve a consistent thickness.
 3. The coating must be continuous, pore ('holiday') free, and to the required surface finish.
 4. Protect the freshly applied coating from heavy rain or rain showers until dry to prevent surface damage.

NOTE: Always follow the equipment manufacturer's recommendations and instructions for use.

CLEANING OF TOOLS

- Clean all tools and application equipment with Sika® Thinner C immediately after use. Hardened material can only be mechanically removed.
- Clean airless spray equipment at regular intervals to prevent hardened silicon particles blocking the spraying tip.

MAINTENANCE

CLEANING

Graffiti Removal

IMPORTANT

Do NOT use rotating nozzle on high-pressure cleaning equipment.

As a general rule, always remove graffiti as soon as possible using either of the two options:

1. Cold-water high-pressure jetting / cleaning equipment (~80 bar / 1200 psi) from a distance of ~10 cm from the substrate.
2. Cold-water low pressure washing and rubbing down with a suitable absorbent clean cloth or a soft scrubbing brush.

Poster Removal

Posters applied with water-based paste glues, do not bond on substrates treated with Sikagard®-850 Clear. They will either fall off under their own weight or can easily be removed with minimal effort. Kindly discard them properly in a recycling center (in accordance with local requirements).

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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