

57601 Coating Kit for PV / Solar Panels

COMPLETE KIT FOR UP TO 70M²

CONTENTS

- 500 ml Biosativa® Bio-Cleaner concentrate 1:10 for pre-cleaning
- 1,000 ml Isopropanol alcohol 99.9% for degreasing
- 500 ml Liquid Glass Coating 5575 (sufficient for approx. 75 m²)
- 100 cleaning wipes 25 × 16 cm for pre-cleaning
- 10 microfiber cloths 10 × 10 cm for application
- 5 microfiber cloths 30 × 30 cm for polishing
- 10 disposable protective gloves

This easy to apply coating was specifically designed to create a super durable, non-stick (hydrophobic and oleophobic) nano scale layer on the external surfaces of PV / Solar panels. The coating prevents full bonding of contaminants to the surface and as a result water, dust, bird lime and other contaminants from environmental pollution are easily removed from the surface. The easy clean effect is very pronounced and as a result the surfaces can be cleaned, if necessary, without using aggressive or abrasive agents. In many instances the panels become clean after heavy rain. **The outcome being enhanced performance of the solar panel.**

PROPERTIES

- Strong hydrophobic and oleophobic effect – repels water and oil
- Excellent easy-to-clean effect – dirt can be easily wiped off
- High abrasion resistance – permanent chemical bond with the substrate
- Prevents degradation of the solar panel surface
- Temperature and UV resistant – ideal also for outdoor applications
- Strong anti-stick properties
- Breathable – the material remains diffusion-open
- Suitable for household and industrial use – chemical resistance up to pH 12
- Reduced cleaning cycles – saves time, energy, and costs
- Biostatic effect – inhibits the growth of microorganisms
- Food-safe (LFGB compliant, EU Regulation 1935/2004)
- Contact angle: approx. 92° (remains >70° after 200,000 abrasion cycles)
- 9H hardness (ISO 15184)
- Invisible to the human eye (coating thickness: 100-150nm)
- Self-cleaning effect on vertical surfaces (after heavy rain)
- Long-lasting effect
- Simple application (do-it-yourself)
- Easy to maintain

PRODUCT SPECIFICATIONS & CHEMICAL PROPERTIES

Base	Silicon dioxide (SiO ₂), alcohol-based
VOC content	99 % (780 g/l)
Flash point	< 14 °C
Dry film thickness (recommended)	Approx. 60-150 nm
Viscosity	Approx. 0,794 g/cm ³
pH Value	Approx. 7
Odor	Characteristic
Colour	Colourless
Consumption	Approx. 4-10 ml/m ² (up to 250 m ² per litre)
Temperature resistance	-25 °C to +50 °C (including sunlight)
Shelf life	at least 2 years
Application temperature	-3 °C to +30 °C
Shelf life	Up to 3 years, depending on abrasion (windscreens up to 6 months)

PFAS INFORMATION

The coating is free from PFOS and PFOA and complies with applicable legal limits. The total PFHxA content in the coating is approx. 200 ppb, ensuring unrestricted marketability within the EU.

APPLICATION & PROCESSING

⚠ Important notes before application

- Do not work in **direct sunlight** or in **very high humidity**.
- Do not apply if the glass surface is hotter than **30 °C** (e.g. panels in direct sun in hot regions).

Step 1: Cleaning the Surface

Thorough cleaning is essential to ensure optimal chemical bonding with the glass surface.

- Mix the supplied **Biosativa® Bio-Cleaner** at a ratio of **1:10 with tap water**.
(One 500 ml bottle yields approx. 5.5 liters of cleaning solution. Prepare only the required amount.)
- Clean the surface thoroughly using the **supplied cleaning wipes from the roll (100 pcs.)**.
- Allow the surface to dry completely, then wipe again with the supplied **alcohol cleaner** using the same wipes. This removes any residues from the Bio-Cleaner and degreases the panel.

Note: The more thorough the pre-cleaning, the longer the coating will last. Apply the coating **immediately after cleaning**.

Step 2: Coating

- Put on two of the supplied **disposable protective gloves**.
- Moisten one of the **blue application microfiber cloths (10 × 10 cm)** with the coating until it is evenly damp but not dripping.
- The set contains **500 ml of Solar Coating**, sufficient for approx. **75 m²**. Around **6–7 ml per m²** are required. Applying more liquid will **not** improve performance.
- Apply the coating evenly to the panel surface – first **vertically**, then **horizontally**.
- If too much material has been applied, a **slight gray haze** will appear on the glass.
- Work swiftly, as the alcohol-based solution evaporates from the cloth after approx. **1–2 minutes**.

Step 3: Finishing

- Wait about **2 minutes**, then gently polish away the gray haze using one of the supplied **blue microfiber cloths (30 × 30 cm)**.
- The **water-repellent effect** is visible immediately.
- The coating is fully cured after approx. **12 hours**, remains invisible, and does not affect the appearance of the panel.

Renewal of Coated Glass Surfaces

If the effect diminishes over time, the surface can be recoated without special preparation. Cleaning and application are the same as for the initial treatment.

Function Test

After **24 hours**, perform a drop test – water should visibly bead off (lotus effect).

CLEANING & MAINTENANCE

- Aggressive cleaners are no longer necessary.
- Regular cleaning with a mild cleaner (e.g. **CCM Biosativa®**) prolongs the effect.
- If the beading effect decreases, additionally wipe with alcohol cleaner.

QUALITY STANDARDS & TESTS

- Antibacterial effect (TÜV) – >99.99% germ reduction
- Hydrophobicity test (TÜV) – water beads off at 50 km/h
- 9H hardness test (SGS) – ISO 15184
- Increased scratch and impact resistance (Erichsen test and ASTM D523/D2244)
- UV resistance – no yellowing after 2000 hours
- LFGB-compliant for food contact
- REACH tests – all limits met (no lead, no SCCPs, no SVHCs >0.1%)
- Solar module test – increased energy efficiency due to reduced soiling

SAFETY & TRANSPORT

- Dangerous goods: Yes (UN 1170, Ethanol solution, Class 3, PG II)



- Hazard statements: H225 – Highly flammable liquid and vapor. H319 – Causes serious eye irritation.
- Personal protective equipment: Safety goggles and gloves recommended
- Disposal: According to local regulations

UN No.: 1219 – ISOPROPANOL (Packaging Group II)

For liquid containers, the regular dangerous goods regulations apply (ADR/IMDG/IATA).

For sachets (individually packed impregnated wipes), IATA DGR Special Provision A46 applies, a special rule: Not subject to ADR, as it is a "sealed package containing less than 10ml of a flammable liquid of Packing Group II or III, fully absorbed in a wipe."

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