



Product Information:

Vetro Power Solar Panel Nano-Shield

Vetro Power Solar Panel Nano-Shield is a ready-to-use liquid glass coating for glass surfaces and photovoltaic applications. The ultra-thin layer prevents the adhesion of dirt and water on the glass, so dust, dirt and pollen are washed away by rain without streaks or residue.

Hydrophobic, oleophobic and UV-stable, with no change in look and feel. Applied during module production or afterwards on installed glass.

Fields of application:

Photovoltaic modules (rooftop, commercial, ground-mounted), module production, glass facades, skylights and greenhouse glass.



Why choose Solar Panel Nano-Shield

Less cleaning.

On a coated glass facade that was cleaned four times a year, cleaning was no longer necessary after the application; rain washed the dirt away and the effect was unchanged after one year.

No loss of light.

Laboratory tests on PV module glass confirm the transmission is not affected adversely; increased transmission was measured on the coated sample.

Proven durability.

Significant hydrophobicity after 3500 h of UV weathering; higher contact angle than comparison coatings after 5000 cleaning cycles; resistant to cleaners of pH 2 to 12.

Protects the whole module.

Glass, silicone sealing and metal frame receive a passive protection that significantly reduces the adhesion of microorganisms without biocides.

Technical highlights

Technology	SiO ₂ liquid glass, solvent-borne, ready to use
Surface	Hydrophobic, oleophobic, soil-repellent, non-stick
Look and feel	No change; transmission not reduced
UV weathering	Hydrophobic after 3500 h UV exposure
Chemical resistance	Cleaners pH 2 to 12; disinfectants
Pressure cleaning	Up to 60 bar (depending on substrate)
Temperature resistance	Up to 450 °C peak
Flash point	12 °C, highly flammable liquid
Coverage	800 to 1,000 sq ft (75 to 93 m ²) per litre
Service life	Up to 5 years; 3 to 4 years in windy, dusty or coastal sites

Application

The glass must be free of dust, grease and residues of cleaning agents, and dry. Test an inconspicuous area for stability and functionality first. Ready to use, no dilution: spray with an HVLP spray device, working square metre by square metre on larger surfaces; industrial spray equipment is suitable. Apply a thin, even film and avoid ponding on the substrate. Apply at 5 to 35 °C and 90% humidity or less, in the shade, with no rain expected within 24 hours; keep dry and untouched for the first hour, full performance after 24 hours.

Storage and handling

Highly flammable liquid and vapour (flash point 12 °C): keep away from heat, sparks, open flames and ignition sources; no smoking; use in a well-ventilated area with gloves, eye and respiratory protection. Store cool and well ventilated, container tightly closed, away from oxidising agents, frost, heat and sunlight.

Important Notice

Due to the raw material used, different visual colour changes can happen. This can appear occasionally batch-related and does not constitute a reason for complaint of the respective product.

Attention

Only cleaning agents that are suitable for the surface are to be used. The coating reduces soiling; it does not remove dirt already bonded to uncoated glass, so surfaces are cleaned before coating.

Containers

Available in 250 ml, 1 Litre and 5 Litre packs; bulk drums and IBC on request.

Coverage: about 800 to 1,000 sq ft (75 to 93 m²) per litre. Allow extra for spray loss.

Warning advice: We recommend wearing suitable protective clothing. In case of contact with skin, immediately rinse off with water. Do not swallow. Avoid contact with eyes. In case of contact with the eye or mucosa, immediately rinse off with water. In the event of symptoms occurring, seek medical treatment. Keep out of reach of children!

General Advice: Do not inhale atomised spray and the liquid product. Zyax Chem Pvt. Ltd. is not liable for damages to the product, as a result of dirt entering the bottles and canisters, e.g. after opening the containers. Zyax Chem Pvt. Ltd. is also not liable for improper application of the product if the surfaces have been recoated for any reasons, without Zyax Chem Pvt. Ltd.'s prior written agreement, nor for any damage to or deterioration of the coating system arising from causes beyond the control of Zyax Chem Pvt. Ltd., including but not limited to impact, abrasion, mechanical damage, neglect, malicious damage, fire damage, pollution and abnormal weather conditions, neither for failure associated with exposure of the coatings to abrasive, chemical substances, abrasive scouring, hydrofluoric acid and highly alkaline chemicals such as bleach, potassium hydroxide and sodium hydroxide and/or if the coated surfaces have not been maintained in accordance with the supplier's recommended maintenance procedures. All information is based on today's state-of-the-art technology. As to the above-mentioned information, we do not lay a claim to completeness, these are only to be understood as possible examples for application areas. Due to a large number of surfaces and object conditions, the buyer/user is not relieved of the duty to professionally verify, in his own responsibility, that our materials are suitable for the intended purpose according to the respective object conditions. In all other respects, our general conditions of sale apply. If the new product information is issued the validity of the old version expires.



Rain does the cleaning



Hydrophobic and oleophobic



No loss of transmission



UV-stable 3500 h test



5000 cleaning cycles

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