

Glassguard

Signo Glassguard is the strongest and most durable glass improvement system available. Once applied, a protective layer less than 100-nm thick (80,000 times thinner than a human hair) bonds with the substrate to leave a smooth, anti-stain, non-discolouring surface layer.

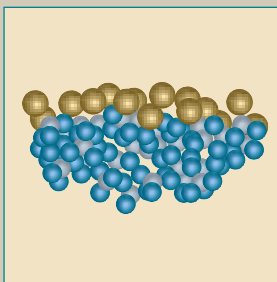
The coating is crystal clear, UV stable, chemically inert and extremely durable, having both hydrophobic and oleophobic capabilities. It will not peel or flake and is unaffected by extremes of temperatures from -20°C to $+350^{\circ}\text{C}$.

Signo Glassguard offers protection against:

- Discolouration of glass from contaminated air and road traffic pollution
- Chemical attack including oxide corrosion by acid rainwater, damage by alkaline run-off from construction materials such as cement, concrete and plaster, and from fat, grease and oil products
- Corrosion by salt and other climatic coastal and marine conditions
- Etching by electrostatic particles from train, tram and metro networks, and by rust particles.

STRUCTURE

Ethanol-based Signo Glassguard is made up of silicon dioxide molecules whose surface energy is modified by anti-bonding molecules. On application to the glass, silicon dioxide molecules from the coating and the glass surface start to bond together, releasing the anti-bonding molecules. These molecules migrate to the surface creating an ultra-smooth, protective outer layer, and changing the status of the glass from high to low energy. This low-energy status is fundamental to the repellent qualities offered by treated glass.



As the silicon dioxide molecules (blue/grey) in Signo Glassguard bond seamlessly with those in the glass, the anti-bonding molecules (brown) form a highly protective surface layer, repelling water and contaminants.



BENEFITS

- The surface quality is preserved or restored to its original state, becoming highly water repellent.
- Air and waterborne contamination is unable to adhere to the glass.
- Cleaning becomes much easier and less frequent – required 50–70% less often.
- The surface remains sparkling and will not discolour.

TREATMENT METHODS

Applied by surface spraying onto deep-cleaned surfaces, Signo Glassguard can be applied almost anywhere: on site, at manufacturing premises or in a dedicated application centre.

Signo Glassguard can be applied on new surfaces during manufacture or installation, or to restore existing surfaces to their original quality.

APPLICATIONS

- Residential, conservatory and commercial façade glazing
- Reflective and pirolitic glass
- Marine glass
- Airport facilities and traffic tower glass
- Motorway and railway sound-barrier glass
- Shower enclosure glass, glazed tiles and porcelain
- Automotive glass
- Solar panels
- Sandblasted glass
- Laboratory ware
- Art glass and mirrors
- High-voltage power insulation
- Interior and furniture glass

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Graffitiguard

Signo Graffitiguard is a graffiti-resistant formula for coating porous silicate substrates such as sandstone, concrete, terracotta and clay. Once applied, a protective layer less than 100-nm thick (80,000 times thinner than a human hair) bonds with inner pores of the substrate to leave a smooth, anti-stain, non-discolouring surface layer.

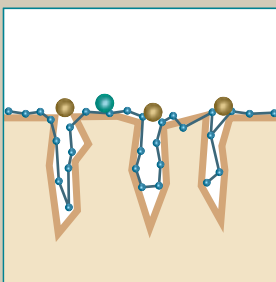
The coating is optically clear, UV stable, chemically inert and extremely durable, having both hydrophobic and oleophobic capabilities. It will not peel or flake and is unaffected by extremes of temperatures from -20°C to $+350^{\circ}\text{C}$.

Signo Graffitiguard offers protection against:

- Repeated graffiti vandalism – offering 10–15 cycles of colour removal before re-application
- Chemical attack including acrylic paint damage – allowing easy removal of solvent-based graffiti and solvent-free graffiti
- Damage from fat, grease and oil products
- Colour seepage into substrate
- Abrasion and frost damage.

STRUCTURE

Solvent-free Signo Graffitiguard is made up of silicon dioxide molecules whose surface energy is modified by anti-bonding molecules. On application to the porous substrate, silicon dioxide molecules from the coating and the substrate start to bond together releasing the anti-bonding molecules. These molecules migrate to the surface creating an ultra-smooth, protective outer layer, and changing the status of the porous substrate from high to low energy. This low-energy status is fundamental to the repellent qualities offered by treated surfaces.



As the silicon dioxide molecules (blue) in Signo Graffitiguard bond seamlessly with those lining the inner pores of the substrate, the anti-bonding molecules (brown) form a highly protective, breathable surface layer. By preventing the absorption of solvent-based paint (green), permanent damage through colour seepage is prevented.



BENEFITS

- The existing surface quality is preserved, becoming highly water and grease repellent, and resistant to colour seepage and abrasion.
- Paint and other contaminants are unable to adhere to the surface.
- Cleaning becomes much easier and less frequent – typically required 50–70% less often – and withstands high-pressure cleaning (up to 50–60 Bar).
- The lifespan of the substrate is extended because of reduced cleaning cycles.
- The surface remains clean and will not discolour.

GRAFFITI REMOVAL

Where the substrate is suitable, graffiti is removed by high pressure cleaner (max. 50–60 bar) and water at $+90^{\circ}\text{C}$. On more sensitive surfaces or where hot water is unavailable, a commercial-quality, graffiti-removal paste can be used, followed by a final washdown with water.

TREATMENT METHODS

Applied by surface spraying, brush or roller onto deep-cleaned surfaces, Signo Graffitiguard can be applied almost anywhere: on site, at manufacturing premises or in a dedicated application centre.

Signo Graffitiguard can be applied on new surfaces during manufacture or installation, or on existing surfaces to prevent further deterioration. Hardening at 20°C , the treatment requires no additional energy or UV light during application.

APPLICATIONS

- Building façades
- Bridges and tunnels
- Passenger facilities
- Precast concrete blocks, stonework, bricks and pavings
- Stone panel floor and wall coverings

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