

# 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.

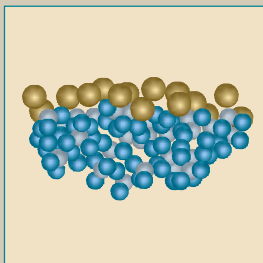
The coating is crystal clear, UV stable, chemically inert and extremely durable, having both hydrophobic and oleophobic capabilities. It will not peel or flake and is unaffected by extremes of temperatures from  $-20^{\circ}\text{C}$  to  $+350^{\circ}\text{C}$ .

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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