



Vetro Power Glass & Ceramic Protect

Hydrophobic Nano Coating for Glass, Facades and Ceramic Surfaces

Ready-to-use silicon dioxide sol-gel coating for glass and ceramic surfaces, also available as a concentrate for volume users. Hydrophobic and oleophobic, food-safe, UV-stable, no change in look or feel, PFOA-free and PFAS-free.

**Water-repellent**

water beads and runs off

**Oil-repellent**

oil and grease wipe off

**Soil-repellent**

dirt does not bond

**UV-stable**

3,500 hours

**Heat-resistant**

up to 450 °C

**PFOA-free and PFAS-free**

no fluorinated repellents

Benefits

- **Hydrophobic and oleophobic:** water beads and runs off, oil and grease sit on the surface and wipe away
- **Soil-repellent:** dust, pollen and traffic film do not bond to the glass, so rain rinses facades and cleaning cycles drop
- **No change in look and feel:** invisible on glass, mirrors, glazed tiles and sanitaryware, no film, no tint
- **Abrasion resistant:** withstands high-pressure and steam cleaners up to 60 bar, depending on the substrate
- **Food-safe and biocompatible:** meets the German food and feed code (LFGB) and EC 1935/2004 for food contact surfaces
- **Temperature resistant:** up to 450 °C peak, suitable for hobs, oven glass and facades in full sun
- **UV-stable:** 3,500 hours of artificial UV weathering with the coating still repelling water
- **Chemical resistant:** stable from pH 2.5 to 12; dried graffiti can be removed repeatedly with Vetro Power Pre Cleaner
- **PFOA-free and PFAS-free:** silicon dioxide sol-gel chemistry, no fluorinated repellents
- **Coverage:** about 800 to 1,000 sq ft per litre of ready-to-use coating (roughly 11 to 14 ml per m²), depending on the surface and method

Performance and testing

- **Artificial UV weathering, ISO 11507 method A, 3,500 h** (Polymer Service GmbH Merseburg): water contact angle 116.7° on the freshly coated glass and 95.3° after 3,500 hours of UV exposure. Untreated glass measures 10° to 15°. The coating is still strongly water-repellent after the full test.
- **Flexural strength, DIN 1249-12, DIN 18516-4, DIN EN 12150-1** (Friedmann & Kirchner): coated single-pane safety glass meets the normative flexural strength requirements; the coating does not weaken the glass.
- **Reflection, FT-IR** (IGR, Institut für Glas- und Rohstofftechnologie): no difference between coated and uncoated glass on either the tin side or the air side.
- **Transmission, UV-Vis spectrometer** (IGR): no loss of transmission in the visible range; increased transmission from the mid-visible into the long-wave UV on the coated sample.
- **Food safety** (CBA Chemische Produkte-Beratung und Analyse GmbH): meets sections 30 and 31 of the German food and feed code (LFGB) and the requirements of Regulation (EC) 1935/2004 for consumer goods.
- **Application:** clean with Vetro Power Pre Cleaner so the glass is free of dust, grease and cleaner residue. Apply by HVLP spray or with a soft, lint-free cloth; coverage is about 800 to 1,000 sq ft per litre of ready-to-use coating. Ready-to-use is applied neat. A concentrated version is available for volume users. Surfaces can be handled as soon as the ethanol has flashed off; full hardening in 24 hours at 20 °C, faster with warmth. Test on an inconspicuous area first.

How Vetro Power Glass & Ceramic Protect compares

Figures for Vetro Power are from independent test certificates issued for the coating. Figures in the second column are from the manufacturer's published technical table for a leading glass and ceramic nano coating sold for the same uses.

Property	Vetro Power Glass & Ceramic Protect	Leading glass nano coating (published data)
Water contact angle	116.7° on coated glass (Polymer Service GmbH)	106°
Durability test	3,500 h artificial UV weathering, ISO 11507; still 95.3° after the test	3,000 wet-scrub cycles, ISO 11998; 100° after the test
Temperature resistance	450 °C peak	275 °C
Chemical resistance	pH 2.5 to 12	pH 1 to 13
Food-contact certification	Yes: LFGB sections 30 and 31, Regulation (EC) 1935/2004 (CBA GmbH)	Not stated
Glass strength and optics	Tested: flexural strength to DIN EN 12150-1 unchanged; reflection and visible transmission unchanged (Friedmann & Kirchner, IGR)	Transparency 99% stated; no strength test published
Fluorinated chemistry	PFOA-free and PFAS-free	PFOS/PFOA-free
Supply	Ready-to-use, or concentrate for volume users	Ready-to-use

Vetro Power figures: test certificates from Polymer Service GmbH Merseburg, Friedmann & Kirchner, IGR and CBA GmbH. Comparison figures: the other manufacturer's published technical specification, September 2026. Different test methods measure durability differently; both are shown as published.

Applying Vetro Power Glass & Ceramic Protect

How Vetro Power Glass & Ceramic Protect is applied

From the product information sheet. Air-dries at room temperature, no curing equipment needed.

1 Clean

Vetro Power Pre Cleaner, so the glass is free of dust, grease and cleaner residue. Test on an inconspicuous area first.

2 Apply

HVLP spray, or a soft lint-free cloth. Ready-to-use is applied neat. About 800 to 1,000 sq ft per litre.

3 Flash-off

As soon as the ethanol has evaporated the surface can be handled, stored and transported.

4 Harden

Full hardening in 24 hours at room temperature (20 °C). Warmth speeds it up. Clean with water, or a mild pH 5 to 7 cleaner.

Flammable liquid: ethanol carrier, flash point below 15 °C. Ventilate, keep away from ignition sources, do not inhale spray mist.

Water contact angle on glass

Measured by Polymer Service GmbH Merseburg on coated glass

Untreated glass

10° to 15°
Water spreads into a film

Vetro Power Glass & Ceramic Protect

116.7°
Water beads and runs off

After 3,500 h UV weathering

95.3°
Still water-repellent, ISO 11507

A higher contact angle means water beads instead of wetting the surface. Above 90° a surface is hydrophobic.
Test certificate: artificial weathering to ISO 11507, 3,500 hours. Untreated glass value from the same report.

Where Vetro Power Glass & Ceramic Protect is used

Three of the surfaces the coating is specified for, with the test data that applies to each.



Glass facades and windows

Rain beads and runs off instead of spreading, and dirt is released with water. Contact angle on coated glass 116.7°, still 95.3° after 3,500 hours of artificial UV weathering (ISO 11507). Reflection and visible light transmission of the glass are unchanged, and flexural strength to DIN EN 12150-1 is unchanged. Resistant to high-pressure and steam cleaners up to 60 bar.



Shower screens, tiles and sanitaryware

Specified for shower screens, glazed tiles, wash basins, toilets and bathroom glass. Water and soil are repelled, so routine cleaning is with water, or water and a mild pH 5 to 7 cleaner for heavier soiling. The coating withstands chemicals from pH 2.5 to 12, and there is no change in the look or feel of the surface.



Food service, kitchens and worktops

Certified food-safe by CBA GmbH to sections 30 and 31 of the German food and feed code (LFGB) and Regulation (EC) 1935/2004, for glass guards, glazed ceramic, worktops and counters. Oil-repellent as well as water-repellent, and heat-resistant to a peak of 450 °C.

Frequently asked questions

What are the main benefits of Vetro Power Glass & Ceramic Protect?

Vetro Power Glass & Ceramic Protect makes glass and glazed ceramic hydrophobic and oleophobic, so water, oil and dirt stay on the surface and wipe or rinse off. It is soil-repellent, abrasion resistant, food-safe, UV-stable and temperature resistant to 450 °C, and it does not change the look of the glass. It is PFOA-free and PFAS-free and covers about 800 to 1,000 sq ft per litre of ready-to-use coating.

How long does Vetro Power Glass & Ceramic Protect last?

In artificial UV weathering to ISO 11507 for 3,500 hours the water contact angle fell only from 116.7° to 95.3°, against 10° to 15° on untreated glass, so the coating was still strongly water-repellent at the end of the test. Service life on a building depends on exposure and on how the glass is cleaned. Reapply when water stops beading.

Is Vetro Power Glass & Ceramic Protect suitable for commercial and industrial use?

Yes. It was developed for industry and trade: glass facades, curtain walls, shopfronts, hotel bathrooms, sanitaryware, glazed tiles and processing equipment. Because dirt does not bond to the coated surface and rain rinses it away, facade cleaning intervals and the scaffolding, manpower and disruption that go with them come down.

How is the performance of Vetro Power Glass & Ceramic Protect tested?

By independent institutes: artificial UV weathering (ISO 11507, 3,500 h), flexural strength of coated safety glass (DIN 1249-12, DIN 18516-4, DIN EN 12150-1), reflection by FT-IR and transmission by UV-Vis spectrometry, and food-contact safety to LFGB and EC 1935/2004. The results are listed under Performance and Testing on this page.

How is Vetro Power Glass & Ceramic Protect applied?

Clean the glass first with Vetro Power Pre Cleaner so it is free of dust, grease and cleaner residue. Apply by HVLP spray, or wipe on with a soft, lint-free cloth, working square metre by square metre and avoiding ponding. Test on an inconspicuous area first. The surface can be handled as soon as the ethanol has flashed off and is fully hardened after 24 hours at 20 °C.

Is it supplied ready-to-use or as a concentrate?

Both. The ready-to-use grade is applied neat. A concentrated version is available for volume users; it keeps for 2 years unopened.

What is the shelf life of Vetro Power Glass & Ceramic Protect?

At least 2 years in the unopened original container, and 6 months once opened. Store between minus 5 °C and plus 30 °C, tightly closed, away from heat and open flames; the product is flammable.

How should treated glass be cleaned?

Water is usually enough. For heavier soiling use water with a mild, neutral cleaner of pH 5 to 7. Dried graffiti is removed by spraying Vetro Power Pre Cleaner on the area, leaving it a few minutes and wiping; this can be repeated. Avoid abrasive pads, hydrofluoric acid and strongly alkaline chemicals such as bleach and caustic soda, which shorten the life of any coating.

Can the coating cause colour changes on the surface?

The liquid itself can vary slightly in colour from batch to batch because of the raw materials used; this has no effect on the coated surface. On the surface, apparent colour differences come from the glass structure, gloss level, application and light, not from the coating, which is invisible once cured.

Which glass and ceramic surfaces can it be used on?

All non-absorbent glass and glazed ceramic: windows, glass facades, porches and canopies, mirrors, lenses, shower screens, glazed wall and floor tiles, wash basins, toilets, winter gardens and worktops. It is not for absorbent unglazed ceramic or stone; for those see Vetro Power Porous Stone Protector.

Can Vetro Power Glass & Ceramic Protect withstand high temperatures?

Yes. The coating is temperature resistant up to 450 °C peak, so it can be used on ceramic hobs, oven and fireplace glass, and on facades and canopies exposed to full sun.

Is it safe for food-contact surfaces?

Yes. The coating meets sections 30 and 31 of the German food and feed code (LFGB) and Regulation (EC) 1935/2004 for consumer goods, tested by CBA GmbH. It is used on glass worktops, splashbacks, glazed tiles and glass in food processing areas.

Does the coating reduce light through the glass?

No. Measured by UV-Vis spectrometer at IGR, coated glass showed no loss of transmission in the visible range, and slightly higher transmission from the mid-visible into the UV. Reflection measured by FT-IR was unchanged. This is why the same coating is used on solar glass.

Does it help with hard-water marks on shower screens?

Water beads and runs off the coated screen instead of drying in place, so far less of the mineral residue that forms limescale is left behind, and what does form is on the coating rather than etched into the glass and wipes off with a neutral cleaner. Squeegeeing after use extends the effect.

Is a coated tile floor slippery?

The coating does not change the look and feel of the surface, so a tile keeps the slip resistance it had before. It is not an anti-slip treatment; for wet floors that need added grip see Vetro Power Anti-Slip Protect.

Documents

Product brochure

<https://www.vetropoweramc.com/uploads/product/brochure/vp-glass--ceramic-protect.pdf>

Technical Data Sheet

<https://www.vetropoweramc.com/uploads/product/tds/vetro-power-glass--ceramic-protect.pdf>

Product page

<https://www.vetropoweramc.com/product/nano-coating-for-ceramic-glass>

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