

# Long lasting anti-microbial Liquid Glass Coating

effective for up to 18 months

























## What is revolutionary about the TiOSEPT® technology?

People have been using silver as a remedy against bacteria for thousands of years. The first recorded uses were in China 3500 years ago. There is no doubt that silver is an effective antibacterial agent, but it has to be the "right kind" of silver, used in the right form. This is especially true when silver is incorporated into coatings. In the mid-2000s, silver was used in refrigerators, paints, coatings, etc. In most cases, the silver used for these applications was in the form of "silver ions". This technology worked very well for a short time, but after a few weeks the performance dropped

dramatically, so we developed a solution which allowed us to incorporate silver into our ultra thin "liquid glass coatings" and also keep it stable and effective for a prolonged period.

We found that the addition of "silver chloride" is the ideal form of silver as it integrates well into our coating and most importantly it provides long-term protection against a wide range of microorganisms (bacteria, fungi and viruses). At the same time the coating is harmless to humans, animals and the environment and complies with German and Austrian biocide regulations.

The technology has been tested for high level efficacy by independent laboratories, e.g. TÜV and Hohenstein.

www.ccm-liquid-glass.com/Tiosept

1 Protection against pathogens for up to 18 months



2 Tested by independent testing institutes

4 Massively durable (withstands 10s of thousands of wiping actions)

3 Transparent & invisible

#### **Properties:**

- Eliminates bacteria (E.coli, S. aureus) and enveloped viruses (Corona, Ebola, Rota virus) up to 99.99%
- · Prevents the colonisation of yeast and mould fungi
- · Dermatologically Tested, Classified as "very good"
- Surfaces are easier and faster to clean ("easy-to-clean")
- · For indoors and outdoors
- Abrasion-resistant (increased scratch resistance)
- · Easy and quick application
- Surface hardness on glass 9H (TÜV test according to MSZ EN ISO 15184:2013)
- Scratch hardness on glass 10N (TÜV test according to MSZ 9640/41:1983)
- Contact angle 95° on glass and 91° on stainless steel, after 10,000 cleaning cycles 92° + 85° (tested by TÜV with water)
- Layer thickness approx. 20 nm (nanometres)
- · Roughness: 6 nm on the surface
- BAUA-Reg.No. N-104947 (biocide registration)

### For smooth surfaces Glass and Ceramics, Stainless S

Glass and Ceramics, Stainless Steel, Aluminium, Plastic & painted Surfaces.

#### FAQ:

#### Can TiOSEPT® be applied to plastics?

Application on PE, PP, melamine resin & polycarbonate is possible (e.g. on light switches, table tops etc.)

Can TiOSEPT  $\! (8) \!$  be used on stainless steel/metal surfaces, e.g. handrails, outdoors?

Yes, this is possible.

#### **Application:**

#### 1. Pre-cleaning

It is recommended to wear disposable protective gloves. Application temperature 5 - 35°C.

- 1. Clean the surface very carefully with commercially available cleaners. After this preliminary cleaning process, wipe the surface with a clean wet cloth to remove any residues of the cleaning agents from the surface. Dry the surface.
- 2. Remove the alcohol pre-cleaning cloth from the sachet and wipe the surface thoroughly. (This specially formulated alcohol will remove any residual impurities.)
- **3.** Allow the surface to dry for at least 1 minute then wipe the surface with a clean tissue or similar item. The better the cleaning, the longer this exceptional coating will last.

#### 2. Coating

It is recommended to wear disposable protective gloves. Application temperature 5 - 35°C.

- 1. Remove the cloth containing the coating from the sachet and wipe the surface in a hatched pattern, ensuring full coverage of the surface. The cloth is sufficient for approx. 2m². It is important to work quickly because the cloth will dry after approx. 90 seconds.
- 2. Allow the surface to dry for at least 2 minutes (below  $15^{\circ}C = 10$  minutes), Do not touch for 10 minutes. Full curing takes approximately 10 hours but the coating is functional within minutes. In some instances a slight "misty", appearance can be detected. Light buffing of the surface with a microfibre cloth will remove any misting.

**Plastic surfaces** become antimicrobial and gain increased hydrophobicity and easy clean attributes. Test on an inconspicuous area prior to coating. Not suitable for alcohol sensitive surfaces. The coating is not optimised for polycarbonate and Plexiglas<sup>®</sup> The durability on these surfaces is below 18 months.

#### Packaging size

box with 20 pieces

Sachets:

Single packed wet wipes. Wipe quality: 60 g/m², viscose-free fleece Sachet 1: Pre-cleaning wipe, filled with IPA (isopropanol) 99%. Sachet 2: Coating wipe, filled with TiOSEPT® SG-55

1. for 1m<sup>2</sup> (wipe size 100 x 140 mm, sachet format 60 x 80 mm) each filled with 3.5 ml
TiOS-SG55-SA1-1: outer carton with 800 pieces, bulk
TiOS-SG55-SA1-20:

2. for 2m<sup>2</sup> (wipe size 150 x 240 mm, sachet format 80 x 120 mm) each filled with 8 ml
TiOS-SG55-SA2-1: outer carton with 400 pieces, bulk
TiOS-SG55-SA2-10: box with 10 pieces

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**Bulk ware,** for up to 120 m<sup>2</sup> per litre TiOS-SG55-1: 1 litre bottle TiOS-SG55-20: 20-Liter-canister



Made in Germany