KASTUS GLASS

Log4+® - Antimicrobial Glass Coating

Log4+® is a novel, patented, visible light activated (VLA) photocatalytic antimicrobial coating for Glass.

Visible light and oxygen in contact with **Log4+®** triggers a chemical reaction resulting in the decomposition of organic and inorganic substances offering bacteria kill rates up to 99.99% (Log 4). **Log4+®** is effective in indoor lighting conditions; **not requiring UV.** As **Log4+®** is sintered into the glass surface at high temperature, it is permanent, long-lasting, scratch resistant and invisible.

Uses include:

Touch screens
Smart phones & tablets, ATM, computer

Food storage & display
Sneeze guards, fridge, freezer, microwave.

Mirrors
Hotels, domestic & washrooms.

Medical devices
Machinery vision panels & glass plates.

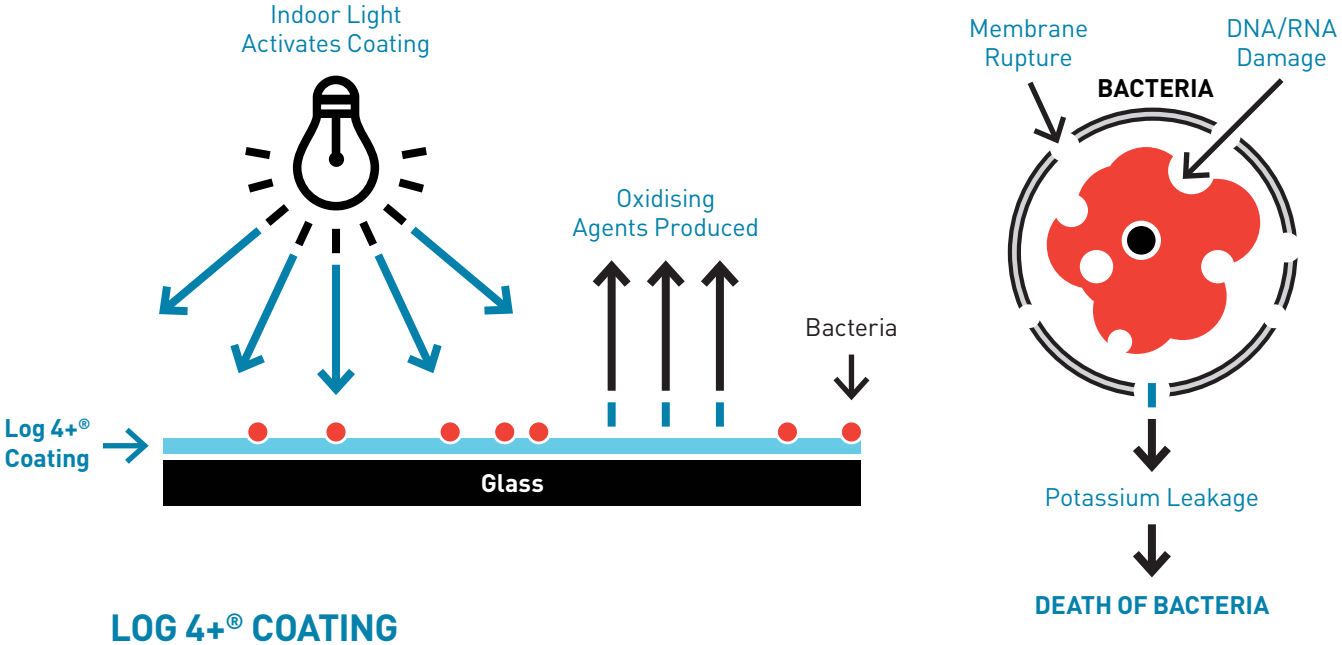
Food & Pharma
Production, storage and transport.

Cleanroom and Healthcare
Work surfaces, furniture & internal/external windows.

Windows, Doors & Mirrors
Hotels, swimming pool, bathroom, public buildings, banking, hotel, airport, kitchen, domestic.

Packaging
Glass bottles.

Transport
Public transport vehicles, general automotive, aviation & rail.



LOG 4+® COATING

- Is applied to glass using spray and curing processes which are typically used in glass manufacture.
- Cost effective and commercially viable.
- Is effective against gram positive and negative bacteria, fungi and mould creating enhanced product benefits for commercial partners and end users.
- Is supplied in a liquid form with no toxic additives, VOC or harmful bi-products.
- Can be tailored for different applications depending on customer requirements.
- Offers unique selling points giving the customer revenue generation potential.
- Anti-odour and air cleaning properties.
- Will not adversely affect the functionality of the core glass product.
- Reduce cleaning requirements in production cleanrooms, public buildings, high touch surfaces, ATMs and airports.

TECHNICAL ADVANTAGES

- Antimicrobial test ISO 27447:2009 (4mm thick low iron float glass) returned a kill rate under the light of 99.99% and 99% in darkness against Staphylococcus Aureus
- Scrub-rig testing ISO 11998:1998 indicates excellent durability of coatings, no samples showed scratches after 500 cycles
- Coating thickness 30 - 40 nm
- Glass samples showed haze values between 0.36 - 0.63 %
- High Transmission (>91%)
- Humidity test ASTM D2247 passed effective
- Determination of resistance chemicals ISO 10545 -13:1997
- Determination of resistance to stains ISO 10545 -14:1997
- Tests for in vitro cytotoxicity showed no relevant cytotoxic effect when tested to standard ISO 10993