Nano technology
Ceracoat Ceramic Unlimited

GLASS CARE

HIGH QUALITY NANOTECHNOLOGY COATINGS FOR SMOOTH GLASS, PLASTIC AND GLAZED CERAMIC SURFACES: «EASY-TO-CLEAN » OR « SELF-CLEANING» ALSO WITH ANTI BACTERIAL PROPERTIES

CERACOAT COATING FOR GLASS + GLAZED CERAMIC SURFACES:

These coatings were designed to enable smooth, glass-like surfaces to have less contact with dirt particles. The hydro- and oleo phobic effects cause particles of contamination such as grease, oil, lime and materials from environmental pollution to adhere less to the substrates, and allow them to be easily removed from the coating, i.e. without applying abrasive agents or cleaning products ("Easy-clean" effect). AVAILABLE AS EASY-TO-CLEAN AND SELF-CLEANING

EXAMPLES OF USE:

- Glass and plastic surfaces in sanitary areas (showers, mirrors, windows)
- Glazed ceramic surfaces (toilets, lavabo, bath, sinks, glazed tiles)
- Window glass + construction glass (conservatories, high-rise buildings)
- SOLAR PANELS (glass, plastic)

PRODUCT CHARACTERISTICS:

- Strong hydrophobic (or hydrophilic) + oleo phobic (or hydrophilic) properties
- Strong non-stick properties - anti-bacterial
- Excellent easy-clean performance on contamination and lime-scale (or self-cleaning)
- Food safe (inert) - abrasion resistance on glass

Self-cleaning option (due to photocatalytics available)

OTHER PROPERTIES:

- Invisible to the human eye (coating thickness: 100-150 nm)
- Permanent (UV-stable, enormous abrasion resistance)
- Resistant to temperature change, breathable, anti-bacteria properties
- Simple application (do-it-yourself)
- Chemical resistant

APPLICATION:

Simple do-it-yourself application makes it suitable for end-customers as well:

1. Manual: Spraying on surface and then drying (polishing)

2. Industrial: Spraying machine + polishing machine

This NANO-coating is completely networked and hardened after 24 hours. The easy-to-clean (or self-cleaning) effect can only be tested after this hardening phase.

STORAGE STABILITY:

Unopened original containers can be stored for at least 3 years. Recommended storage- and transport temperature: -3 to 30°C

CONSUMPTION:

Manual: 5-10 ml/m2, Industrial: 10-15 ml/m2

ADVANTAGES COMPARED TO COMPETITIVE PRODUCTS

 Permanence and longevity:

The UV-stability enables functionality for a number of years, approximately the lifetime of the coated surface

Many competitive products are slowly destroyed by sunlight and cleaning

 Abrasion resistant, easy-to-clean effect or self-cleaning effect by photocatalytics
A permanent chemical bond with the substrate enables an excellent abrasion resistance

Many competitive products can be easily removed by abrasion

 Chemical stability - „self-cleaning“ - „anti-bacterial“

The product is resistant to almost all standard household and industrial cleaners

Many competitive products must be reapplied after cleaning the surface

IMPORTANT NOTICE: Our explanations correspond to our current knowledge and experience. The right to make alterations within the framework of technical advances and operational development is reserved. The customer is not released from careful product application. We guarantee the quality of our products in accordance with our general sales conditions as a matter of course. The products are ready-to-use. Mixing with other substances or other charges is strictly forbidden.

Ceracoat Unlimited / 3065 Brookview Drive, Marietta GA 3006 .

Phone 678-498-2030 ext 404 www.ceracoatunlimited.com / info@ceracoatunlimited.com

TESTING RESULTS: (antibacterial properties & still active after 1500 h of UV exposition that corresponds 5 years / Performance still over 95% after 10000 rubber wash cycles).

Test Results Ceracoat „Glass Care" **13.6.2013**

Institut Fresenius

Test of bactericidal activity in accordance with EN 1040
Excerpt from the present report

Sample designation: Ceracoat „Glass Care"

Test organisms: Staphylococcus aureus (ATCC 6538)
Pseudomonas aeruginosa (ATCC 15442)

Assessment:
According to the results of the microbiological tests Ceracoat "Glass Care" shows a significant effect against the used test organisms Pseudomonas aeruginosa and Staphylococcus aureus. Reduction of the bacteria by a factor of 100 000.

CBA – Chemische Produkt-Beratung und Analyse GmbH

Extract from the analysis report:
Physiological safety / food safety
Sample designation: Ceracoat „Glass Care" (Sample of a toilet lid)

Analysis method and result:
The sample (surface about 1.25 dm2) was stored in 300 ml 15% ethanol for 24 hours at 40 ° C. Subsequently, a part of the ethanol was evaporated and the residue was determined gravimetrically. The residue was 2.0 mg/dm2. A change by ethanol could not be found.

The requirements of § 30 and 31 of the Regulations for food traffic, tobacco products, cosmetics and other consumer products (Food and Commodities Act), as amended on 9.9.1997, are complied with.

Excerpt from endurance test:
Test: Stress cracking corrosion

Test object: Plastic disc treated with Ceracoat "Glass Care"

The disc treated with Ceracoat "Glass Care" was subjected to UV exposure for more than 3000 hours. Of significance were at this time 2 test factors:
- Transmission loss and stress cracking corrosion (cracking)

Result after 3000 hours UV exposure:
Transmission loss: At 350 nm: 0.2% transmission loss
At 400 nm and 800 nm: 0.0% transmission loss

Cracking: No cracking on plates treated with Ceracoat "Glass Care".
After 290 - 450 hours only cracking on untreated plates.

Summary:
After an endurance test of 3000 hours of UV exposure there is no stress cracking corrosion on the disc treated with Ceracoat "Glass Care" and there is only minimal or no transmission loss!

CHAMBER OF INDUSTRY AND COMMERCE OF THURGOVIA

ORIGINAL 003046
Seen by the
Chamber of Industry and Commerce
of Thurgovia
8570 Weinfelden (Switzerland), 2014 -09- 24