



Technical Data Sheet
PPC06 - MicroGuard Coating™

Anti-Microbial (Anti-Mould) Abrasion & Chemical Resistant Coating for Plastic

Description

MicroGuard Anti-Microbial is a UV Cured coating that proves to be 99% effective against common bacteria including; E. Coli, MRSA, Salmonella, and Campylobacter jejuni.

Since its introduction back in 2016, MicroGuard has been applied and used extensively throughout healthcare, food processing and energy applications where cleaning is of paramount importance. Due to it's unique, UV cured application on to sheets and moulds, finished products have included; preparation surfaces, cladding, door handles, lighting and dividers.

Based on a Urethane Acrylate Monomer, the coating provides excellent chemical resistance as well as protection from UV rays which causing degradation and yellowing.

Benefits

- ✓ **Bacterial Protection** – 99% effective against common bacteria including E. Coli, MRSA & Salmonella
- ✓ **Abrasion Resistance** – Scuffs, chips and scratches are vastly reduced in both quantity and severity.
- ✓ **Chemical Resistance** – Protection against common cleaning chemicals without worry of damage.
- ✓ **Matt Finish** – Adjustable matt finish with gloss levels between 20 and 90%
- ✓ **Weatherable** – Providing protection against the harshest of elements in the UK and abroad.
- ✓ **Durability** – All Peerless coatings enhance the life of any plastic substrate.
- ✓ **Tested** - Using test method ASTM G21-09 B – the coating was proven to prevent mould forming even after 28 days from inoculation.

Technical Data

Coating adhesion using test method **ASTM D3359 DN53 15**

Material	Adhesion on Application	Adhesion after 72h water soak
Polycarbonate	100%	100%
PMMA	100%	100%
PET	100%	100%
PVC	100%	100%

Coating Hardness using test methods ASTM D3363 and ASTM D1003

As the tests employed for coating hardness are substrate dependant, these tests have been carried out on both PMMA and Polycarbonate.

Pencil Hardness using ASTM D3363

PMMA - 6H Polycarbonate – 5H

Taber Abrasion using ASTM D1003 after 100 cycles

PMMA <5% Polycarbonate < 6%

Chemical Resistance using ISO test method 2812

This test was completed at 15 minute intervals for 8 hours and then left for a total of 24 hours.

Chemical	Result	Chemical	Result
Ketones	Passed	Aliphatics	Passed
Alcohols	Passed	Alkalis	Passed
Esters	Passed	Acid	Passed
Glycol ethers	Passed	Diesel	Passed
Aromatics	Passed	Petrol	Passed

Cleaning

In order to maintain the product in good condition, regular cleaning may be permitted using suitable household cleaning agents. The abrasive resistant coating gives improved protection against chemical attack.

- Use lukewarm water to rinse and soften dirt
- A solution of lukewarm water and ordinary household cleaner or mild soap for cleaning
- A sponge or soft cloth should then be used to gently remove dirt and grime
- Ethyl alcohol or white kerosene may be used sparingly to remove paint and other such substances

However, do not:

- Scrub the sheet with brushes or sharp implements
- Use squeegees
- Use harsh solvents for prolonged periods of time, other than those listed, or any abrasive cleaners
- Avoid cleaners of a highly alkaline composition

Always finish a clean by rinsing with clean water.

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