

Specification of Paints

Finishes / Painting

INTERIOR HYGIENE COATING

Interior Surfaces

Generic Specification for the internal coating system.

All internal paint should be as following:

1 - Three coat system

- a) **1 coat Acrylic Primer**
- b) **2 coats Antimicrobial Nanotechnology based pure acrylic paint with hollow glass spheres**

2 - Minimum Dry film thickness total: 100 - 200 microns total.

3 - Anti-microbial effect: durable effectiveness against following bacteria (proven ≥ 5 -log-reduction = 99.999%):
Staphylococcus aureus
Enterococcus faecium
Pseudomonas aeruginosa
Listeria monocytogenes
E. coli

4 - Durable anti-fungus properties: Anti-fungus properties by the usage of nano-silver-technology. The coating shall be free of conventional biocides and fungicides.

5 - Low- VOC: VOC: < 5g/l according to ISO 11890-2.
No room air pollution according to
- TÜV PROOF criteria catalogue (TÜV Certificate)
- AgBB Evaluation Scheme

6 - Resistance to flame spread: Class A2 according to DIN 4102-1
Class A according to ASTM E84

7 - Scrub resistance: Class 2 according to DIN EN 13300
 ≥ 400 scrubs according to ASTM D2486

8 - Cleansability: ≥ 5 according to ASTM D4828

- 9 - Coverage: Class 2 according to DIN EN 13300
- 10- Contrast Ratio: 0.9869 at 0.0075" Drawdown
- 11 - Resistance against disinfectants: resistance against disinfectants according DIN EN ISO 2812-1 and DIN EN ISO 4628-1

a) Acrylic Primer

- Solvent free acrylic based primer with excellent properties of penetration and very good adhesion. The primer shall be permeable to water vapour and alkali-resistant.
- Physical Properties:

pH value: approx. 8

Specific gravity: 1.01 g/cm³

- The coverage shall be approx. 5.0 - 6.5 m² / litre unless otherwise recommended by the manufacturer.
- The primer shall be used in accordance with manufacturer's recommendations.

b) Antimicrobial Nanotechnology based pure acrylic paint with hollow glass spheres

- Low-VOC, pure acrylic nano-technology based interior paint with hollow glass spheres (boro-silicate-Glass) and multifunctional properties. Provides an excellent protection against mould and mildew and effectively eliminates bacteria due to the usage of nano-silver with an average diameter of 10 - 15 nano-metres.
- Performance Criteria:

Low-VOC (<5g/l). No room air pollution according to TÜV PROOF criteria catalogue (TÜV-Certified) and AgBB Evaluation Scheme (Certificate).

Durable effectiveness against following bacteria (proven ≥ 5 -log-reduction = 99.999%): Staphylococcus aureus, Enterococcus faecium, Pseudomonas aeruginosa, Listeria monocytogenes, E. Coli.

The coating shall be permeable to water vapour, cleansable (≥ 5 according to ASTM D4828) and scrub resistant (Class 2 according to DIN EN 13300, ≥ 400 scrubs according to ASTM D2486) and provide a good coverage (Class 2 according to DIN EN 13300).

The coating shall be resistant against disinfectants.

Fire rating class: A2 as per DIN 4102-1 and A according to ASTM E84.

The coating shall be environmentally friendly, free of solvents, softeners, biocides and fungicides and permanently resistant to fungus and mould.

- Physical Properties:

Specific gravity: 1.15 g/cm³

Solids by volume 58%: ± 2

Gloss: matt

- The coverage shall be approx. 3.0 - 3.5 m² / litre depending on the substrate and unless otherwise recommended by the manufacturer.
- The coating shall be used in accordance with manufacturer's recommendations.

The physical properties of the complete internal paint system have to be verified by test results from independent, recognized institutes /laboratories.

The application shall be as per approved manufacturers' recommendation done by specially trained applicators.

All coats shall be supplied by one *Paint Manufacturer*.

Schedule of Systems

The following coating systems are recommended:

Finishes / Painting INTERIOR:

Coat	Application Rate
Primer Acrylic based Primer <i>BIONI Grip</i>	Approx. 5.0 - 6.5 m ² / litre (depending on texture and substrate)
Topcoat Antimicrobial Nanotechnology based pure acrylic paint with hollow glass spheres <i>BIONI Medical</i>	Approx. 3.0 - 3.5 m ² / litre (2 coats) (depending on texture and substrate)