GLASS DECORATION · WATER-BASED

Optiguard 4570

Water-based, low-VOC acrylic–melamine paint for industrial glass decoration

FINISH

Matt · semi-matt · gloss
according to customer preference

1.23 g/cm³	1800 mPa·s	150–160 °C	≥ 500	≈ 52 g/L
Specific gravity (20 °C)	Viscosity (Brookfield)	Baking, 20 min	Dishwasher cycles	VOC (ISO 11890-2)

Product description

OPTIGUARD 4570 is a water-based, environmentally friendly glass paint with low VOC, based on acrylic dispersion and melamine resin. Its silane additive gives excellent adhesion to glass. It is a high-performance product for industrial glass decoration and can be produced in matt, semi-matt or gloss versions.

Application areas

- Glass bottle and jar decoration
- Glassware and decorative glass coatings
- Architectural glass
- Household glass – plates and drinking glasses

Advantages

- Low VOC – environmentally friendly
- Water-based – sustainable production
- Excellent adhesion to glass with silane
- High dishwasher resistance
- Heat-resistant, homogeneous film
- Matt, semi-matt or gloss versions

Position in the system

Cured glass paint
OPTIGUARD 4570 · oven-cured
THIS PRODUCT

Glass substrate
Clean, oil- and silicone-free glass

Industrial glass decoration

Spray-applied, oven-cured glass paint

Performance

Typical results of the oven-cured film on glass.

≥ 500	GT0 / 5B	22 mg	ΔE* ≤ 2.0	≈ 52 g/L
Dishwasher · EN 12875-1	Adhesion · ISO 2409	Abrasion · ASTM D4060	UV · QUV 500 h	VOC · ISO 11890-2

Dishwasher test at 70 °C with alkaline detergent: no change ≥ 500 cycles, slight matting at 600 cycles.

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Technical data (at +20 °C)

Specific gravity (20 °C)	**1.23 g/cm³ (ISO 2811)**
Viscosity (Brookfield, 25 °C)	**1800 mPa·s (ASTM D2196)**
Flash-off (23 °C, 50 % RH)	**10 min**
Baking	**150–160 °C / 20 min**
Dishwasher resistance	**≥ 500 cycles (EN 12875-1)**

VOC	**≈ 52 g/L (ISO 11890-2)**
Adhesion on glass	**GT0 / 5B (ISO 2409 / ASTM D3359)**
Abrasion (Taber CS-10F)	**22 mg loss (ASTM D4060)**
UV resistance (QUV 500 h)	**ΔE* ≤ 2.0 (ASTM G154)**

Application procedure

01

Surface preparation

The glass must be clean and free of oil, silicone, dust and fingerprints before decoration.

02

Mixing

Stir with a high-speed mixer until homogeneous, add the complete activator and mix again. Rest the mixture for 1–2 min.

03

Application

Apply by spray for an even distribution. Flash-off 5–10 min at ambient conditions.

04

Curing

Bake in a curing oven at 150–160 °C for 20 min (or 140 °C for 30 min).

Mixing ratio (by weight)

5 kg

- ○ **5 kg** — Glass paint
- ● **0.25 kg** — Activator

Also supplied as 15 kg + 0.75 kg activator. Always add the complete activator.

Curing
150–160 °C / 20 min
Or 140 °C for 30 min in a curing oven.

Flash-off
5–10 min
At ambient conditions (10 min at 23 °C, 50 % RH).

Dishwasher resistance
≥ 500 cycles
EN 12875-1 – slight matting only at 600 cycles.

Important: always add the complete activator and make sure the mixture is homogeneous before spraying.

Packaging

- 5 kg + 0.25 kg activator
- 15 kg + 0.75 kg activator

Storage

- Store unopened in original packaging at +15…+35 °C in closed, dry areas.
- Protect from direct sunlight and frost.
- Shelf life: 12 months from production.

Safety

- Water-based and non-flammable.
- Not hazardous; contains no formaldehyde, asbestos, mercury, lead or chromates.
- Use suitable PPE; see the MSDS.

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