7656 Plastic-Metal Premium

This high-quality SiO_2 coating has been specially developed for smooth surfaces such as plastic, painted surfaces, and stainless steel. It forms an ultra-thin, transparent protective layer that protects the substrate from dirt, UV radiation, and wear.

PROPERTIES

- Strong hydrophobic and oleophobic effect – repels water and oil
- Easy-to-clean effect – dirt can be easily wiped off
- High abrasion resistance – permanent chemical bond with the substrate
- Temperature and UV resistant – ideal for outdoor use
- Breathable – the material remains open to diffusion
- Suitable for household and industrial areas – resistant to many common household cleaners (except concentrated alkalis)
- Food-safe – inert
- Layer thickness: approx. 60–150 nm
- VOC-free
- Reduced cleaning cycles – saves time, energy, and costs
- Biostatic effect – inhibits the growth of microorganisms

PRODUCT SPECIFICATIONS & CHEMICAL PROPERTIES

Base	Silicon dioxide (SiO_2), alcohol-based
VOC content	99 % (780 g/l)
Flash point	< 14 °C
Dry film thickness (recommended)	Approx. 60-150 nm
Viscosity	Approx. 0,794 g/cm³
pH Value	Approx. 7
Odor	Characteristic
Colour	Colourless
Consumption	Approx. 4–10 ml/m² (up to 250 m² per litre)
Temperature resistance	-25 °C to +50 °C (including sunlight)
Shelf life	at least 2 years
Application temperature	-3 °C to +30 °C
Shelf life	Up to 3 years, depending on abrasion

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PFAS INFORMATION

7656 is free of PFOS and PFOA and thus complies with applicable legal limits. Furthermore, the coating meets the current EU regulation 2024/2462, which sets a limit of less than 25 ppb for PFHxA and related substances. The total content of PFHxA in the **7656** coating is approx. 200 ppb, thus ensuring its unrestricted marketability within the EU.

Technical explanation of fluorine content:

The **7656** coating is not classified as "C Zero" because it contains small amounts of fluorinated additives. These are used in very low concentrations to ensure the necessary chemical bond and the desired oil and dirt repellence that are crucial for your application.

APPLICATION & PROCESSING

General

Surface preparation

- Thoroughly clean the surface to be treated, ensuring it is free from dust, dirt, and grease.
- Rinse with clean water and dry.
- Then degrease with isopropanol (70–99.9%) to remove surfactant residues.
- The surface must be completely dry, clean, and grease-free.

Application

- Apply the product at temperatures between +5 °C and +50 °C.
- Spray the liquid onto a lint-free cloth (e.g., microfiber) and apply evenly.
- Do not touch the surface for about 15 minutes.
- Polish with a soft microfiber cloth to remove any streaks.
- The surface is slightly load-bearing after about 1 hour, fully cured after 24 hours.

Functional test

- After 24 hours, test with a drop test – water should visibly bead up (lotus effect).

Car Paint

Preparation of car paint

- Wash and dry the vehicle thoroughly.
- Remove any polish residues with isopropanol (70–99.9%).
- Ensure the surface is dust-free and grease-free.

Application

- Apply the product at temperatures between +5 °C and +50 °C.
- Spray the liquid onto a lint-free cloth and apply evenly in small sections (e.g., half a hood).
- Do not touch for about 15 minutes.
- Polish with a soft microfiber cloth.
- Do not wash the vehicle for 24 hours; full curing after 7 days (no car wash).
- Hand washing only with mild shampoo is recommended.

CLEANING AND CARE

Aggressive cleaners are no longer required. Surfaces can be cleaned easily with a mild cleaner (e.g., CCM Bio Cleaner Biosativa®). Regular cleaning prolongs the effect.

QUALITY STANDARDS & TESTS

- ISO 11507 – Artificial weathering with UV light and water (Method A)
- DIN 55620-1+2 – Determination of the contact angle
- DIN EN ISO 11998 – Wet abrasion resistance
- BS-EN 1186:2002 – Migration test (passed: 2.2 mg/dm², below the 10 mg/dm² limit)
- Hardness test – According to test report (EN-2016-10195), the coating showed a significant increase in hardness compared to untreated samples.

PACKAGING UNITS & VARIANTS

- 1 L bottle (7656-1)
- 200 L drum (7656-200)
- 1000 L IBC (7656-1000)
- Concentrate version (7658) available for 20 litres of ready-to-use solution.

SAFETY & TRANSPORT

- Dangerous goods: Yes (UN 1170, Ethanol solution, Class 3, PG II)
- Hazard statements: H225 – Highly flammable liquid and vapor. H319 – Causes serious eye irritation.
- Personal protective equipment: Safety goggles and gloves recommended
- Disposal: According to local regulations

UN No.: 1219 – ISOPROPANOL (Packaging Group II)

For liquid containers, the regular dangerous goods regulations apply (ADR/IMDG/IATA).

For sachets (individually packed impregnated wipes), IATA DGR Special Provision A46 applies, a special rule: Not subject to ADR, as it is a "sealed package containing less than 10ml of a flammable liquid of Packing Group II or III, fully absorbed in a wipe."

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