SIO-521 Anti-Graffiti High-Hardness Nano Silicone Resin (Topcoat Varnish)

Product Overview

SIO-521 Anti-Graffiti High-Hardness Nano Silicone Resin is non-toxic, harmless, waterproof, and oil-repellent, offering excellent UV resistance and self-cleaning properties (similar to how dust on leaves is naturally washed away by rain). It features superior chemical resistance, acid and alkali resistance, anti-aging properties, waterproof and oil-proof capabilities, anti-graffiti protection, and long service life. Once applied, it enhances the surface with antibacterial, mildew-resistant, moisture-proof, stain-resistant, waterproof, and anti-graffiti properties, while also increasing hardness and gloss.

Product Composition

Special Nano silicone resin, anti-graffiti additives, and environmentally friendly mixed solvents.

Key Features

1. Excellent Stain Resistance: Anti-graffiti Level 1, strong hydrophobicity (water contact angle ~110°) and oleophobicity (oil contact angle ~30°). Anti-fouling and easy cleaning.
2. Durable & Wear-Resistant: Forms a transparent protective film on surfaces. Pencil hardness ≥9H, adhesion rating 0.
3. Pure Silicone Composition: Anti-aging, non-yellowing, and weather-resistant. Resistant to boiling water, 300°C high temperatures, polar organic solvents (such as alcohol, PMA, thinner), vinegar, red wine, and cola.
4. Hydrophobic & Oleophobic Coating: Oil stains and dirt do not adhere easily and can be easily cleaned.
5. High Transparency, High Gloss, Weather Resistance, Anti-Graffiti, and Anti-Fingerprint Properties.
6. Easy Application: Single-component (moisture-curing system), moderate viscosity, and balanced curing speed.
7. Environmentally Safe: Low odor, non-toxic, and non-flammable (flash point >55°C).

Technical Specifications

Performance Indicator	Value
Appearance	Colorless, slightly viscous transparent liquid
Density (g/mL, 25℃)	0.98±0.02
Active Ingredient Content	30%
Coating Thickness	3-8 μm
Coverage	50-100 m²/kg

Applications

As a functional coating, SIO-521 is mainly used on inert and hard-to-bond organic and inorganic surfaces, including:

- Thermoplastic plastics, advertising topcoats, powder coatings, anti-graffiti gloss coatings, GRC, stone, wood, metal, and painted surfaces.
- Waterproof, oil-proof, and anti-graffiti protection for these substrates.
- Easily removes ink marks from pens, allowing repeated cleaning.
- Restores and refurbishes aged coatings, eliminates swirl marks, and restores old surfaces to a like-new condition.

Application Process

1. Ensure the substrate is completely dry, oil-free, and clean.
2. Apply evenly using a roller or microfiber cloth (self-leveling, thickness 3-8 μm). Spraying, brushing, or dipping methods can also be used.
3. No heating required, the coating self-cures at room temperature:
    - Surface dry: 10-20 minutes
    - Basic cure: 12 hours
    - Fully cured: 24 hours

Packaging & Storage

- Packaging: 20kg/drum
- Shelf Life: 6 months (store in a cool place, unopened)

Precautions

1. Fast surface drying: Do not leave the container open for prolonged exposure to air.
2. After spraying SIO-521, clean spray guns and tools within 30 minutes using D40 or D100 cleaning solvent.
3. Avoid contact with moisture during spraying or dipping.
4. Do not mix SIO-521 with water or alcohol. It should be stored in non-transparent glass bottles or aluminum alloy cans. Avoid packaging in PET, LDPE, or other permeable containers.

Disclaimer:

The above information is based on what we consider reliable sources. However, we do not assume legal responsibility for product quality or application results, as we cannot control how the product is used. Before first-time use or under different environmental conditions, users should test the product to confirm its suitability for their specific application.