

# **TDS**

# SQ-720001 Universal Hardening UV Varnish

## **Description**

**SQ-720001** single-component UV hardening liquid is mainly used for hardening the surface of PC, PET, PMMA, PC/PMMA composite sheets or membranes. It can be applied by spraying, shower coating, roller coating and other methods. After the coating is formed into a film, it has good adhesion to the substrate and can protect the surface of the coated material for a long time. The coating process is simple and the production efficiency is high. The coating has good optical properties, does not produce rainbow streaks, has high cross-linking density, low curing shrinkage, extremely high hardness and excellent wear resistance. It can be used to make texture decoration and shell molding for mobile phones, laptops, home appliances and other products. High hardness, good chemical resistance, high transparency, steel wool resistance 30-80 times.

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Appearance	Transparent liquid
Viscosity (Iwata – 2 cups)	8.5-9.5 S
UV component (%)	35±2 %
Density (g/cm³, 25°C)	0.90±0.05

Coating	performance

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Test items	Test Data
Hardness (1Kg force load)	2H-4H
Coating thickness (µm)	5-15
Boiling performance (surface spray paint, no primer 100°C/60min)	Adhesion 5B, no change in coating
Bending (cylindrical shaft diameter)	40mm
Curing energy (mercury lamp, mj/cm²)	600-1,000
QUV resistance	More than 200h
Anti-friction performance (1Kg load-bearing,	
wear-resistant machine, 1*1 grinding head,	50 times, no wear marks
0000# steel wool)	
Anti-graffiti (Zebra oil-based pen)	General
Water contact angle	General

Note: The above performance parameters can be customized according to customer requirements

#### Performance

The product is suitable for hardening the surface of PC, PET, PMMA, PC/PMMA composite sheets and other sheets and film materials.

It has good wetting properties on the substrate. After film formation, the coating is smooth and flat, with high gloss, high hardness and smooth feel.

Excellent wear and scratch resistance

It has good resistance to high and low temperatures, high humidity, chemical solvents, moisture resistance, and UV resistance. The product performance remains stable in harsh environments.



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#### **Applications**

Texture decoration and shell molding of mobile phones, laptops, home appliances and other products.

### **Construction technology**

- 1. Clean the material surface.
- 2. Pour the glue into the metal mold, fit the PC or PET to the metal mold, and use a glue stick to squeeze the surface of the material so that the glue can expel air bubbles and achieve better leveling. Make sure that the bonding parts are covered with glue.
- 3. Irradiate with ultraviolet light with a wavelength of 265 or 395 nanometers. When irradiating, keep the UV lamp as close to the glue as possible to speed up the curing.
- 4. Tear off the PC or PET from the metal mold. At this time, the adhesive layer is completely peeled off and stuck to the surface of the PC or PET.
- 5. If the adhesive layer is not completely cured, you can continue to use UV light until the adhesive layer is fully cured.

#### **Construction process**

Unwind  $\rightarrow$  Glue on specially treated release film  $\rightarrow$  Mold rolling  $\rightarrow$  UV curing  $\rightarrow$  Demold  $\rightarrow$  Rewind  $\rightarrow$  Printing ink, etc.  $\rightarrow$  Cutting  $\rightarrow$  Forming  $\rightarrow$  Injection molding  $\rightarrow$  Peel off the surface polyester film  $\rightarrow$  Spray hardened layer

#### **Precautions**

- 1. Ensure that the UV adhesive layer absorbs sufficient UV energy to achieve the best curing effect, otherwise it will easily affect the performance of the adhesive layer.
- 2. Remaining glue cannot be returned to the original packaging. It should be sealed away from light and stored at room temperature.

### Storage

To prevent the product from polymerization and gelling, please keep it sealed and away from heat and light. Recommended storage temperature is not higher than 30°C. Unused products must be sealed and stored in a timely manner and cannot be stored in the open. Safe storage time is 6 months at room temperature(25°C) and under ventilation. 1KG/5KG/25KG/barrel

Tips: SQ-720001 is an ordinary hardening liquid with good yellowing resistance, good transparency and hardness of 2-4H.

Note: Technical data represents typical values only. In view of the differences in formulas, production process, conditions, all the above statements must be adjusted according to the actual situation, our company does not make any promises. Our company reserves the right to reform its products without prior notice of any changes.