SQ-710004 High Hardness UV Texture Transfer Coating

Description

SQ-710004 is a single-component UV-curable adhesive that can be molded onto PC, PET, TPU, or other film substrates using various textured or structural molds. It can be manually transferred in small batches using small molds, or via automated, high-throughput structural rollers or textured film transfer systems. It is primarily used for creating textured decorative surfaces and forming housings for products such as mobile phones, laptops, and home appliances. The product features excellent release performance, high gloss, good leveling, high hardness (3–5H), UV-aging resistance, and excellent scratch and wear resistance.

Technical Data

Test Items	Test Data
Appearance	Transparent liquid
Viscosity (25ºC, CPS)	500 - 1,300
UV Content (%)	100
Density (g/cm³, 25ºC)	1.03 ± 0.05
Hardness (1Kg force load)	2H－5H
Coating Thickness (μm)	5 - 25
Boiling Performance (surface spray paint, no primer 100°C/60min)	Adhesion 5B, no change in coating
Bending (cylindrical shaft diameter)	35 mm
Curing Energy (mercury lamp, mj/cm²)	600 - 1,000
QUV Resistance	Over 500h
Anti-Friction Performance (1 kg load, abrasion tester, 1×1 cm abrasive head, 0000# steel wool)	20 times, no wear marks

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

Product Features

High hardness, high wear resistance

Good resistance to yellowing and good transparency

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.

Applications

Textured decoration and housing formation for products such as mobile phones, laptops, and home appliances.

Application Process

1. Clean the surface of the substrate.
2. Pour the adhesive into the metal mold and press the PC or PET film onto the mold. Use a rubber roller to press and level the adhesive, ensuring that air bubbles are removed and the bonding areas are fully covered.
3. Irradiate with a UV lamp at wavelengths of 265 or 395 nm. Keep the lamp as close as possible to the adhesive to accelerate curing.
4. Peel the PC or PET film from the metal mold. The adhesive layer will release completely and adhere to the PC or PET surface.
5. If the adhesive layer is not fully cured, continue UV irradiation until full curing is achieved.

Process Flow

Unwinding → Coating onto specially treated release film → Mold/roller pressing → UV curing → Demolding → Rewinding → Ink printing → Slitting → Forming → Injection molding → Peeling off surface polyester film → Spraying hard coat

Precautions

1. Ensure that the UV adhesive layer receives sufficient UV energy to achieve complete curing; inadequate irradiation may compromise the coating performance.
2. Do not pour leftover adhesive back into the original container. Store the remaining material in a sealed, light-proof condition at room temperature.

Storage Conditions

To prevent premature polymerization due to the high reactivity of this product, keep it tightly sealed and store away from heat sources and direct sunlight. It is recommended to maintain storage temperature below 30 °C. Unused product should be promptly resealed and must not be left open. Under ventilated conditions at 25 °C, the product has a safe storage period of 6 months. Available packaging: 1 kg / 5kg / 25 kg per drum

Tips: SQ-710004 is a high-hardness UV transfer adhesive with excellent hardness, scratch resistance, yellowing resistance, and high transparency.