Electronic PCBA Waterproof and Moisture-proof Nano-coating Liquid L4

No. PQ-RD3-TL001

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Introduction

L4 liquid is a colorless, transparent, low-odor fluid with ultra-low viscosity and ultra-high leveling. A layer of nanoscale thickness coating can be formed on the surface of PCBA circuit board processed by simple dipping or spraying, drying at room temperature or fast baking. With advantages of ultra-thin, waterproof, moisture proof and preservative, the coating has broad application prospects in smart wear, smart medical, smart home, communication, new energy and other industries.

Composition

Fluorinated acrylic polymer , fluorine solvent, coupling aid.

Features & Benefits

- Excellent hydrophobicity: Low surface energy (<10 dyne), slide angle for water: <10°
- Ultra-thin: 50-800 nm, invisible thickness, colorless and transparent
- Good weather resistance: UV resistance, corrosion resistance (NSS, oxidation, acid and alkali)
- Durability: Excellent adhesion, good weather resistance, high and low temperature resistance
- High insulation: High impedance value, high compactness, low porosity
- No signal effect
- Good thermal conductivity
- Environmentally friendly and non-toxic
- Multiple processes: Dipping, soaking, spraying, etc.

Typical Properties

Item	Values
Appearance	Transparent colorless liquid
Relative density	(1.75±0.05) g/cm^3
Viscosity (*cSt*)	0.8
Surface dry time	Normal temperature: 2 min
Actual dry time	Normal temperature: 12h, 50-60 ℃: 1h
Volatility	Volatile
Decomposition temperature	272℃

Test Data

Test Item	Values	Test method
Contact angle for water	109-113°	-
Contact angle for oleic acid	83-86°	-
Adhesion	Class 0	GBT9286-1998
NSS test	72h (pH 6.5)	GB 10125-2012
Acid resistance test	96h (pH 2.0)	GB-T 9274-1988
Alkali resistance test	96h (pH 12.0)	GB-T 9274-1988

Applications

This product will be widely used in the fields of consumer electronics / smart wear, communication terminals, security / fire protection, military communication, instruments and meters, sensing / IC chips / semiconductors, new energy, air / sewage treatment, intelligent robots, unmanned aerial vehicles, medical, maritime, aviation, etc.

Storage

- Store in a sealed container away from light and heat, and in a cool dry place.
- Avoid the effects of moisture and dust.
- If the container is used frequently, a smaller sealed container should be replaced to reduce the volatilization caused by multiple opening of the lid.
- The used product can be recycled for later use. It is recommended to filter as soon as possible and then sealed in another separate container.
- Shelf life: 180 days.

Safety Instructions

- Environmental non-toxic, non-combustible and non-explosive, RoHS & REACH compliant and halogen-free.
- Please dispose of this product properly after use, do not discard it.
- Please keep out of the reach of children.

Package

1kg / btl.

5kg / tub.

30kg / tub.

The information provided is based on the best knowledge and experience of the company at the date of issuing. However, many factors can affect the use and performance, including production process and conditions. The information is designed only as a guidance and shall not be considered as a warranty or specification, and customers must determine that the product is suitable for their particular purpose before use.