

KU223

UV Curing Acrylic Coating

Description

KU223 is a single component, medium-high viscosity acrylic resin that cures 'crystal clear' when exposed to UV-light.

Typical Applications

KU223 has been formulated for potting, encapsulating, coating and sealing applications, e.g. in the electronics industry.

KU223 can also be used for coating and doming on badges and emblems.

KU223 has a very fast cure time and good depth of cure.

KU223 cures dry to touch.

Technical Features

Chemical type:	Urethane acrylate ester
Appearance:	Clear, slight yellow tinge
State:	Liquid
Specific Gravity:	~1.09
Viscosity ¹ :	2,600 - 3,800 cPs
Initial Fixture Time ² :	≤2 seconds
Depth of cure ³ :	4 mm
Refractive Index:	1.537
Hardness:	85 Shore D
Flash Point:	> 100 °C
Shelf Life:	6 months @ 20 °C
Operating Temp. Range	
	Continuous: -50 to +120 °C
	Intermittent: -50 to +150 °C

¹ Brookfield RVT, Spindle 4, 20rpm

² Glass slide fixture 10mW/cm² @365nm

³ Cured for 30secs @ 10mW/cm² @365nm

Typical Curing Performance

Glass Slide Fixture Time Using Hg Vapour Lamp:	
	Time (seconds)
10mW/cm ²	<2
30mW/cm ²	<2
Surface Cure Time (to achieve dry to touch):	
	Time (seconds)
10mW/cm ²	<5
30mW/cm ²	<3

Factors Affecting Cure Speed

KU223 is cured when exposed to UV radiation at 365nm wavelength. Surface and dry-to-touch cure is enhanced by exposure to UV light in the 220nm to 260nm range. These essential wavelengths are emitted by medium pressure mercury vapour lamps. Cure speed may vary as the UV lamp bulb ages.

Cure rate and ultimate depth of cure depend on: light intensity, spectral distribution of the light source, exposure time and light transmittance of the substrate through which the light must pass.

KU223 can achieve depths of cure up to 10mm with high intensity lamps and long cure times.

Typical Environmental Resistance

Hot strength: KU223 is not suitable for use at very high temperatures.

At 120°C the strength of adhesion will be ~25% of the strength at 21°C.

Heat ageing: KU223 exhibits excellent resistance to heat ageing. Typically, exposure to heat for a prolonged period, results in fully curing any uncured resin that may remain. This has the effect of increasing the strength of adhesion when subsequently tested at 21°C.



CHEMENCE®

Technical Data Sheet

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Chemical / Solvent Resistance

Krylex® UV-curing adhesives and coatings exhibit excellent chemical resistance to most oils and solvents including alcohols, methanol, methylated spirit and water.

Limitations

Krylex® UV-curing adhesives and coatings are not recommended for use in pure oxygen or chlorine lines.

Instructions For Use

Krylex® UV-curing products are very sensitive to UV-light. As such, measures must be taken to protect the product from exposure to UV-light from the lamp, sunlight and artificial lighting to prevent unwanted curing.

KU223 can be hand applied from the bottle.

The product should be applied to clean, dry parts. Apply as a uniform coating, avoiding air bubbles.

Excess product can be wiped away with Krylex® KP0637 Cleanser/Degreaser or alcohol.

Once the coating is applied, the parts can be exposed to a UV-light source to initiate curing.

KU223 is suitable for use in dispensing systems for high volume assembly applications. Feed lines for the dispensing system must have black, UV-opaque tubing to avoid product curing in the lines.

General Information

For safe handling of this product consult the Safety Data Sheet.

Storage

Store in the original container, in a cool area out of direct sunlight.

Refrigeration to 5°C gives optimum storage stability.

Presentation

Bottles (UV Opaque): 50ml and 250ml.

Available in bulk for use with dispensing systems.

Notes

The data contained in this data sheet may be reported as typical value and / or range. Values are based on actual test data and are verified on a regular basis.

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