

Technical Data Sheet

KU3104

Light Cure Cyanoacrylate Instant Adhesive

Description

Krylex KU3104 is a revolutionary odourless light curing cyanoacrylate adhesive. It is designed for bonding applications that require very rapid fixture, fillet cure or surface cure.

The UV / visible light cure properties facilitate rapid curing of exposed surface areas while the moisture curing properties of the product allow for secondary curing in shadowed areas.

Technical Features

Cure System:	Moisture / UV / Blue Light
Appearance:	Transparent Yellow
State:	Liquid
Chemical Type:	Methoxyethyl Cyanoacrylate with photoinitiators
Viscosity ¹ :	180 - 220 cPs
Specific Gravity:	1.19
Gap Fill:	0.15mm
Max. Operating Temp:	-40 °C to +80 °C
Shelf Life @ 2 - 8 °C ² :	12 Months

¹ Brookfield LVT Spindle 21, 50 rpm @ 25 °C

² Stored in original unopened containers out of direct sunlight

Cured Performance

Tensile Shear Strength ISO 4587 N/mm²

Substrate	After 24 hr @ 22 °C <i>Without light cure</i>	After 10 s cure <i>With UV / blue light</i>
ABS	10*	7 - 8
Acrylic	7*	7*
Polycarbonate	8*	6 - 7
PVC	6*	3 - 4

* Substrate failure

Tack Free Time

Tack Free Time is the time in seconds required to achieve a tack free surface when the product is cured by means of irradiation.

Light Source	Intensity	Time (s)
Electrodeless, V Bulb @ 365nm	70 mW/cm ²	<10
Electrodeless, H Bulb @ 365nm	30 mW/cm ²	<10
Electrodeless, H Bulb @ 365nm	100 mW/cm ²	<10
Blue light laser @ 445nm	70 mW/cm ²	<10

Fixture Times (Without light cure)

Fixture time is the time at which an adhesive bond (250 mm²) is capable of supporting a 3 kg load for 10 seconds.

The fixture time will depend on the substrate.

The table below shows the fixture time for different substrates using lap shears.

All fixture time measurements relate to moisture cured adhesive at room temperature, with no irradiation.

Substrate	Fixture Time (s)
ABS	15 - 30
Acrylic	90 - 105
Polycarbonate	40 - 55
PVC	120 - 150

Storage

Store in original containers at temperatures between 2 - 8 °C out of direct sunlight and away from sources of heat.

Storage below 2 °C or greater than 8 °C can adversely affect product properties and shelf life.

Limitations

This product is not recommended for use in pure oxygen and / or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.



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Instructions for Use

This product is light sensitive; exposure to daylight, UV light and artificial light should be kept to a minimum during storage and handling. KU3104 performs best with minimal gaps between substrates.

KU3104 may be used as a regular instant adhesive without light curing.

- 1) Ensure parts are clean, dry and free from oil and grease.
- 2) Apply adhesive to one of the surfaces. Do not use items like tissue or a brush to spread the adhesive.
- 3) Hold or clamp parts together firmly until handling strength is achieved.

KU3104 may also be used as a light sensitive instant adhesive. Repeat steps 1) - 3) then expose to a source of UV or blue light to cure: Squeezed material from the bondline, an external fillet or the actual joint (only for transparent substrates).

Product should be allowed to develop full strength before subjecting to any service loads (typically 24 to 72 hours after assembly, depending on bond gap, materials and ambient conditions).

General Information

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

Cyanoacrylate bonds with skin and eyes in seconds. If accidental skin bonding occurs, wash with warm soapy water and peel skin apart using blunt object (i.e. pen). In case of eye contact, bathe immediately with water and seek immediate medical attention. Skin contact through clothing may cause burns due to an exothermic reaction.

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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