

## 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:	180 - 220 cPs
Density <sup>1</sup> :	1.19 g/cm <sup>3</sup> @ 25 °C
Gap Fill:	0.15mm
Max. Operating Temp:	-40 °C to +80 °C
Shelf Life @ 2 - 8 °C <sup>2</sup> :	12 Months

<sup>1</sup> Brookfield LVT Spindle 21, 50 rpm @ 25 °C

<sup>2</sup> Stored in original unopened containers out of direct sunlight

### Tack Free Time / Surface Cure 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 <sup>2</sup>	<10
Electrodeless, H Bulb @ 365nm	30 mW/cm <sup>2</sup>	<10
Electrodeless, H Bulb @ 365nm	100 mW/cm <sup>2</sup>	<10
Blue light laser @ 445nm	70 mW/cm <sup>2</sup>	<10

### Fixture Times (Non-UV / Blue light cure)

Fixture time is the time at which an adhesive bond (250 mm<sup>2</sup>) 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 adhesive moisture cured with no irradiation.

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

### Cured Performance

#### Tensile Shear Strength ISO 4587 N/mm<sup>2</sup>

Substrate	After 24 hr @ 22 °C -Non-UV / Blue light cure-	After 10 s cure -with UV / Blue light-
ABS	12* - 13*	7* - 8*
Acrylic	9* - 10*	8* - 9*
Polycarbonate	9* - 10*	6* - 7*
PVC	12* - 13*	3 - 4

\* Substrate failure

### 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.



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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. Thus, repeat steps 1) - 3) then cure using a source of UV or Blue light to cure either squeezed material from the bondline, a 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 Material 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 area verified on a regular basis.

### Disclaimer

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