

Technical Data Sheet

KB314-LO

Low Odour Cyanoacrylate Instant Adhesive

Description

Krylex KB314-LO is a high viscosity, flexible, odourless, multi-purpose instant adhesive.

KB314-LO is non-staining, showing almost no evidence of chlorosis (whitening) around the bond line.

KB314-LO is also suitable for bonding a very wide range of common materials including polystyrene.

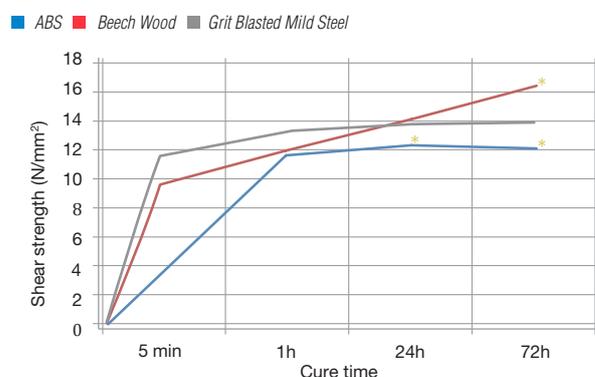
Technical Features

Cure System:	Moisture
Appearance:	Transparent / Clear
State:	Liquid
Chemical Type:	Methoxyethyl Cyanoacrylate
Viscosity ¹ :	1100 - 1750 cPs
Specific Gravity:	1.12
Gap Fill:	0.20mm
Open Time:	up to 2 hrs ²
Max. Operating Temp:	-40 °C to +80 °C
Shelf Life @ 2 - 8 °C ³ :	12 Months

¹ Brookfield LVT, Spindle 3, speed 30 rpm @ 25 °C

² Depending on viscosity and substrate

³ Stored in original unopened containers out of direct sunlight



* Substrate Failure

Fixture Times

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.

Substrate	Fixture Time (s)
Pine Wood	20 - 45
Beech Wood	15 - 45
ABS	20 - 50
Aluminium A5754	45 - 75
Mild Steel	15 - 60

Cured Performance

Tensile Shear Strength ISO 4587 (N/mm²)

The shear strength will depend on the substrate. The table below shows the shear strength for different substrates using lap shears

Substrate	Strength after 24 hr @ 22 °C (N/mm ²)
Pine Wood	9 - 10*
Beech Wood	10 - 11*
ABS	10*
Aluminium A5754	4 - 6
Mild Steel	7 - 12

* Substrate failure

Typical Environmental Resistance

All measurements are based on Lap Shear Strength to ISO 4587 after curing for 7 days @ 22 °C before testing.

Heat Aging

Aged at 60 °C then cooled and re-tested at 22 °C

	Mild Steel (N/mm ²)	ABS (N/mm ²)
Initial Strength	7 - 12	10*
After 3 days	7 - 12	9*
After 7 days	7 - 10	9*
After 14 days	7 - 10	9*

* Substrate failure



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Heat Aging

Aged at 80 °C then cooled and re-tested at 22 °C

	Mild Steel (N/mm ²)	ABS (N/mm ²)
Initial Strength	7 - 12	10*
After 3 days	7 - 12	9*
After 7 days	7 - 10	8
After 14 days	7 - 10	8

* Substrate failure

Water Resistance

Submersion testing - Lap shear joint, total immersion in fresh water @ 22 °C

	Mild Steel (N/mm ²)	ABS (N/mm ²)
Initial Strength	7 - 12	10*
After 3 days	7 - 12	9
After 7 days	7 - 12	9
After 14 days	7 - 10	9

* Substrate failure

Factors Affecting Cure Speed

Cyanoacrylate adhesives cure when confined between close-fitting parts and in the presence of surface moisture on substrates.

Cure speed can be negatively influenced by very large gaps, low temperatures or low humidity environments.

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.

Not recommended for use on Polypropylene, Teflon® or on polyolefin based plastics.

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.

Instructions for Use

KB314-LO performs best with minimal gaps between substrates.

- 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) Accurately locate the parts and assemble within a few seconds. The short fixture time leaves little opportunity for adjustment.
- 4) Hold or clamp parts together firmly until handling strength is achieved.

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).



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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.

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