KB150C

High Temperature Cyanoacrylate Instant Adhesive

Description

Krylex KB150C is an odourless instant adhesive with the capability to withstand constant high operating temperatures of up to 150 °C.

KB150C is also a more flexible adhesive than conventional instant adhesives.

KB150C has excellent bonding properties to a very wide range of materials including most plastics.

Technical Features

Cure System:	Moisture
Appearance:	Transparent / Clear
State:	Liquid
Chemical Type:	Methoxyethyl Cyanoacrylate
Viscosity [1]:	350 - 500 cPs
Specific Gravity:	1.12
Gap Fill:	0.15mm
Max. Operating Temp	
Constant:	-40 °C to +150 °C
Intermittant	-40 °C to +175 °C
Shelf Life @ 2 - 8 °C [2]:	12 Months

1 *Brookfield RVT, Spindle 21, speed 21 rpm @ 25 °C*

2 *Stored in original unopened containers out of direct sunlight*

Cured Performance

Under normal conditions, atmospheric moisture initiates the curing process. Full functional strength is developed in a relatively short time. However the curing process continues for at least 24 hours before full chemical resistance and strength is developed.

Krylex KB150C instant adhesive's initial bond strength will increase when submitted to high temperatures for extended periods.

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/mm²)*
Pine Wood	5 - 7
Beech Wood	7 - 9
ABS	9 - 10*
Polycarbonate	5 - 8
Stainless Steel A316	5 - 9
Mild Steel	10 - 14

* *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 - 50
Beech Wood	15 - 40
ABS	10 - 40
Polycarbonate	30 - 70
Stainless Steel A316	10 - 20
Mild Steel	10 - 25

Typical Environmental Resistance

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

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Heat Aging

Grit blasted mild steel aged at 125 °C then cooled and re-tested at 22 °C

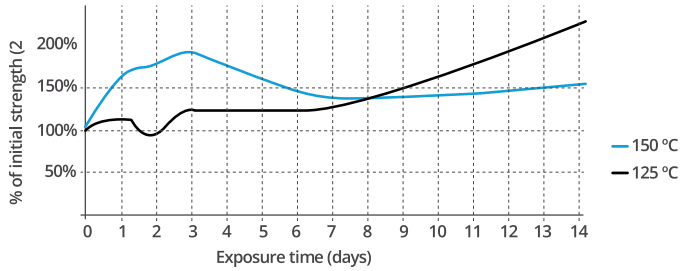
	N/mm²
Initial Strength	10 - 12
After 1 day	9 - 11
After 2 days	5 - 8
After 3 days	6 - 9

Heat Aging

Grit blasted mild steel aged at 150 °C then cooled and re-tested at 22 °C

	N/mm²
Initial Strength	10 - 12
After 1 day	9 - 11
After 2 days	10 - 12
After 3 days	12 - 14

Adhesion Evolution On Mild Steel After Exposure To High Temperatures For Extended Periods



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 immediatly with water and seek immediate medical attention. Skin contact through clothing may cause burns due to an exothermic reaction.

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, polyethylene or Teflon®.

Instructions for Use

KB150C 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).

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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