

# Technical Data Sheet

## KB544

### Cyanoacrylate Instant Adhesive

#### Description

KB544 is an advanced cyanoacrylate thixotropic gel formulation.

It is a surface insensitive instant adhesive, formulated for high strength, general purpose bonding of most common substrates including: plastics, rubbers, leather, fabrics and other common materials, with excellent performance on wood, card and metals.

#### Applications

KB544 is used in applications including: white goods assembly, filter assembly, electronic housing assembly and general industrial manufacturing.

The advanced gel formulation of KB544 is suitable for bonding poorly mating components and for porous substrates such as china and other ceramics.

Due to the thixotropic gel properties of KB544, the adhesive can be applied to surfaces in any orientation as the adhesive will not drip or slump.

The one component nature of KB544 lends itself to easy automation of dispensing on production lines.

#### Technical Features

Resin:	Hybrid Ethyl Cyanoacrylate
Appearance:	Clear
State:	Thixotropic Gel
Cure Speed with Activator:	<3 seconds
Cure Speed w/o Activator:	3 - 35 seconds
Viscosity <sup>1</sup> :	50,000 - 90,000 cPs
Viscosity <sup>2</sup> :	18,000 - 35,000 cPs
Gap Fill:	0.50mm
Flash Point:	>85°C
Specific Gravity:	1.10
Max. Operating Temp:	-50°C to +80°C
Shelf Life @ 5°C:	12 Months

<sup>1</sup> Brookfield RVT, 'T-spindle' C @ 2.5rpm

<sup>2</sup> Brookfield RVT, 'T-spindle' C @ 20rpm

#### Cured Performance

Full Cure Time: 24 Hrs @ 21°C

Tensile Shear Strength <sup>2</sup>: 21 N/mm<sup>2</sup>

<sup>2</sup> ISO 6922

#### Strength Development

After 2 minutes on steel: ~50% of final strength

#### Fixture Times

Steel / Steel:	15 - 30 seconds
ABS / ABS:	10 - 15 seconds
PVC / PVC:	10 - 30 seconds
Cardboard	25 - 35 seconds
Buna Rubber	~3 seconds
Wood (Balsa)	~3 seconds

#### 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.

Chemence recommends testing for suitability of Krylex products for any specific application.

#### Use Of Accelerators/Primer

Krylex activators can be used to accelerate the curing speed or for priming absorbent surfaces. Activators may also be used for fillet cure and curing adhesive outside the bond line.

The use of an activator can reduce bond strength.

Krylex KP707 primer may be used for "difficult to bond" low surface energy plastic substrates.



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### Storage

Store in a cool area out of direct sunlight. Refrigeration to 5°C gives optimum stability.

### Product Safety

Cyanoacrylate bonds skin and eyes in seconds.

If accidental skin bonding occurs, wash with warm soapy water and pry skin apart using a blunt instrument (such as a teaspoon handle).

In case of eye contact, bathe immediately with water and seek medical attention.

Skin contact through clothing may cause burns due to an exothermic reaction.

### Instructions for Use

KB544 suitable for bonding poorly mating components and porous substrates. KB544 can be applied in any orientation without dripping or slumping.

Ensure parts are clean, dry and free from oil and grease.

Apply sparingly to one surface. Over application will result in slower cure speeds and lower bond strength.

Hold parts together firmly until handling strength is achieved.

Product is normally hand applied from the tube or by dispenser gun.

KB544 is suitable for use with dispensing systems for high volume assembly applications.

### Presentation

Tube: ..... 20g

Cartridge: ..... 300g

### General Information

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

### 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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