



CA5019

Fast-Setting, High-Viscosity, High-Elasticity, Cyanoacrylate Adhesive

Description

Lord® CA5019 adhesive is used to bond dissimilar and porous materials. Lord CA5019 adhesive is faster setting than most high viscosity cyanoacrylate adhesives. Due to the gap-filling ability of Lord CA5019 adhesive, it is particularly useful in loudspeaker assembly. Lord CA5019 adhesive qualifies for Mil-A-46050C Type II, Class 3 and CID A-A 3097, Type II, Class 3 approval.

Features and Benefits

Product Purity - contains no measurable trace of moisture contamination. Provides exceptionally consistent bond performance. Prevents settling, sedimentation and precure during storage.

High Viscosity - bridges gaps and bonds dissimilar and porous substrates due to its high viscosity.

Excellent Temperature Resistance - provides good performance at temperatures -53°C to 121°C (-65°F to 250°F).

Fast Cure - minimizes set-up time and reduces overall process time. Sets in 15 seconds when bonding plastic; 5 - 10 seconds when bonding rubber; and 25 - 35 seconds when bonding metal.

Easy to Use - requires minimal user training. Provides consistent results from part to part.

Surface Preparation

Remove oil, grease, mold release, or other contaminants by pretreating with acetone, alcohol, ethyl acetate, or similar degreasing chemicals. Do not use any preparations which would cause the surface to become acidic, as this can slow adhesive cure.

Prior to bonding, clean elastomers with acetone. Roughen metal and plastic surfaces with sandpaper or by sand blasting. Machining of plastics (i.e., milling, drilling, or grinding) will remove adhesive repellents such as mold lubricants. This will allow for better wetting of the parts with the adhesive.

Table 1: Typical Properties* of Uncured Lord CA5019 Adhesive

Appearance	Colorless liquid
Base Compound	Ethyl Cyanoacrylate
Viscosity, cP at 77°F (25°C ± 2°C)	1800 - 2800
Density kg/m ³ lb/gl	1.03 - 1.07 8.56 - 8.89
Flash Point (TCC)	85°C (185°F)
Time to Handling Strength Plastic Metal	15 seconds 25 - 35 seconds
Full Cure	24 hours
Shelf Life	6 months from date of shipment, @ 2°C - 7°C (35°F - 45°F), unopened container.

* Data is typical and not to be used for specification purposes.

Special surface treatments such as flame treating or sodium etching are necessary for plastics such as polyethylene, polypropylene, polytetrafluoroethylene, polyacetal, and other fluorinated hydrocarbons. In cases where pretreatment is impractical, try using the adhesive without pretreatment.

Application

Apply Lord CA5019 adhesive by the drop. Maintain pressure while joining the parts. The adhesive film should not be thicker than 0.0005 mm (0.0002 inch) or the cure will be retarded.

Coverage is determined on the basis of the number of drops dispensed by a specific container. Use the information below as a general guideline:

Bottle Size	Drops/Bottle
454 gm	29,000

Do not expose components to be bonded with Lord cyanoacrylate adhesive to aliphatic hydrocarbons and ester solvents. They will not resist alkalis and concentrated acids. Prolonged exposure to water or high humidity (>90% R.H.) will weaken the bond.

Curing

Actual setting times will be effected by factors such as temperature, humidity, glue line thickness and the mechanical and chemical nature of the surfaces to be bonded. Acidic surfaces retard polymerization, while alkaline surfaces accelerate polymerization.

Clean Up

Clean uncured adhesive with alcohol, acetone, or methyl ethyl ketone (MEK).

Packaging

- Bottles: 454-gram (1 pound)

Automatic dispensing equipment is available from outside vendors. Contact your Lord representative for recommended suppliers.

Storage

Store Lord CA5019 adhesive at 2°C - 7°C (35°F - 45°F). Bring to room temperature before using.

Cautionary Information

Before using this or any Lord product, refer to the Material Safety Data Sheet (MSDS) and label for safe use and handling instructions.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Table 2: Typical Properties* of Cured Lord CA5019 Adhesive

Appearance	Colorless solid
Service Temperature Range	-53°C to 121°C (-65°F to 250°F)
Tensile Strength Fe/Fe MPa (psi)	14.7 (2132)

*Data is typical and not to be used for specification purposes.

Values stated in this bulletin represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Service Department.

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