



CA8000

Cyanoacrylate Adhesive for Bonding Plastic

Description

Lord® CA8000 is a plastic bonding, colorless, high-elasticity cyanoacrylate adhesive. This versatile adhesive is used to bond dissimilar materials, such as plastic to metal and plastic to rubber. Lord cyanoacrylate adhesive will qualify for Mil-A-46050C Type II, Class 1 approval and CID-A-A 3097 Type II, Class 1 approval.

Features and Benefits

Product Purity - contains no measurable trace of moisture contamination. This provides consistent bond performance and prevents settling, sedimentation and precure during storage.

Environmental Resistance - resists weathering and aging and exhibits good performance at temperatures -60°C to 85°C (-76°F to 185°F).

Fast Cure - minimizes set-up time and reduces overall process time. Lord CA8000 sets up in 2 - 5 seconds on rubber and 15 seconds - 2 minutes on most plastics. For bonding metals, Lord CA Accelerator is suggested.

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

Surface Preparation

All substrates should be free of oil, grease, mold release, or other contaminants. This can be achieved by pretreatment with acetone, alcohol, ethyl acetate, or similar degreasing chemicals. Do not use any preparations which would cause the surface to become acidic, as this may slow adhesive cure.

Prior to bonding, elastomers should be cleaned with acetone. Roughen metal or plastic surfaces with sandpaper or sand blasting. Machining of plastics; i.e., milling, drilling, or grinding, will result in the removal of adhesive repellents such as mold lubricants and allow for better wetting of the parts with the adhesive.

Special surface treatments such as flame treating or sodium etching are necessary for plastics such as polyethylene, polypropylene, polytetra-fluoroethylene, polyacetal, and other fluorinated hydrocarbons. In cases where pretreatment is impractical, test the adhesive to determine whether the bond is sufficient without pretreatment.

Table 1: Typical Properties* of Uncured Lord CA8000 Adhesive

Base Compound	Ethyl
Appearance	Colorless Liquid
Viscosity, cP @ 25°C (77°F)	20
Specific Gravity	1.05
Flash Point (TCC)	83°C (181.4°F)
Time to Handling Strength	
Rubber	2 - 5 seconds
Plastic	15 seconds - 2 minutes
Metal	~ 3 minutes - use Lord CA Accelerator
Full Cure	24 hours
Shelf Life	6 months in original unopened container @ 2°C - 7°C (35°F - 45°F) storage temperature.

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

Table 2: Typical Properties* of Cured Lord CA8000 Adhesive

Appearance	Colorless Solid
Service Temperature Range	-60°C to 85°C (-76°F to 185°F)
Tensile Strength: Steel/Steel	1400 psi

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

Application

Apply Lord CA8000 adhesive by the drop. Maintain pressure while joining the parts. Use suitable dosing nozzles to determine the appropriate amount of adhesive to use.

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.

Coverage is determined by the number or drops dispensed by the container. Film coverage can also be determined by the square foot area covered by 0.00025 mm (0.0001 inch) film. Use these estimates as a general guideline:

Bottle Size	Square Feet per 0.0001 inch of film
14 gm	40
28 gm	80
56 gm	200
454 gm	2,000

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.

Information provided herein is based upon tests believed to be reliable. Inasmuch as Lord Corporation has no control over the manner in which others may use this information, it does not guarantee the results to be obtained. In addition, Lord Corporation does not guarantee the performance of the product or the results obtained from the use of the product or this information where the product has been repackaged by any third party including but not limited to any product end user. Nor does the company make any express or implied warranty of merchantability, or fitness for a particular purpose concerning the effects or results of such use.

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Do not expose components bonded with Lord CA8000 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. Adhesive films thicker than 0.0005 mm (0.002 inch) will retard the cure.

Clean Up

Use water to clean up Lord CA8000 adhesive.

Packaging

- 14 gram bottle
- 28 gram bottle
- 56 gram bottle
- 454 gram bottle

The 14 gram and 28 gram bottles are equipped with a dispenser tip to facilitate drop-size application. Automatic dispensing equipment is available from outside vendors. Contact your Lord representative for recommended suppliers.

Storage

Shelf life of Lord CA8000 adhesive is 6 months from date of shipment in original unopened container at storage temperatures 2°C - 7°C (35°F - 45°F).

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.

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