

# MG Super Glue, Liquid 8333 Technical Data Sheet

## Description

The 8333 *Super Glue, Liquid* is a quick curing, solventless, medium viscosity cyanoacrylate adhesive.

# Applications & Usages

Its primary application is to bond parts together without the need for heat or pressure. This adhesive is well suited to bond rubber to rubber, plastic to plastic, rubber to metal, and plastic to metal applications.

This adhesive is not intended as a structural adhesive to join load bearing structures.

## **Benefits and Features**

- Mil-Spec-46050C: Adhesive Type II, Class 2
- Bonds a wide variety of substrates
- Handling time of only 10 seconds
- Strong chemical resistance

## **Curing & Work Schedule**

Properties	Value
Typical Handling Time <sup>a)</sup>	10 s
Service Cure <sup>a,b)</sup> @22 °C [72 °F]	>24 h
Cure Type	Humidity
Shelf Life	2 y

a) Assumes 50% relative humidity.

b) As well as humidity, the type of material being bonded, bond gap, and temperature, may change the cure time.

# **Principal Components**

Name Ethyl-2-cyanoacrylate **CAS Number** 7085-85-0

# **Temperature Service Range**

Properties	Value
Constant Service Temp.	-55 °C to 80 °C [-67 °F to 176 °F]
Storage Temperature of Unmixed Parts	5 to 22 °C [41 to 72 °F]

**ENVIRONMENT** 

✓ REACH compliant

✓ RoHS



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# **Properties of Cured 8330**

Physical Properties	Method	Value		
Color Density @25 °C [79 °C]	Visual	Clear 1.05 g/cm <sup>3</sup>		
Lap Shear Strength (Stainless Steel) (Aluminum) (AD Shear Strength (ABS) (AD Shear Strength (PVC) (Polycarbonate) (AD Shear Strength (Phenolic Rubber) (Neoprene) Butt Joints Tensile Strength (Stainless Steel)	ISO 4587 <sup>b)</sup> <20 s fixture time <15 s fixture time <10 s fixture time <30 s fixture time <10 s fixture time <5 s fixture time ISO 6922	>14.5 N/mm² [>2 100 lb/in²]   >12.1 N/mm² [>1 750 lb/in²]   >6.2 N/mm² [>900 lb/in²]   >6.2 N/mm² [>900 lb/in²]   >6.2 N/mm² [>900 lb/in²]   >6.2 N/mm² [>900 lb/in²]   >5.2 N/mm² [>900 lb/in²]   >5.2 N/mm² [>750 lb/in²]   >12.4 N/mm² [>1 800 lb/in²]		
Electric Properties	Method	Value		
Volume Resistivity	ASTM D 257	≥2 × 10 <sup>15</sup> Ω·cm		
Dielectric Dissipation & Constant Dissipation & Constant @1 kHz	ASTM D 150-98	dissipation, Dconstant, k'0.022 to 3.5		

*Note:* Specifications are for sample cured at 50% relative humidity for at least 24 hours.

a) N/mm<sup>2</sup> = MPa;  $Ib/in^2 = psi$ 

b) The fixture time is the time required to develop a shear strength of 0.1 N/mm<sup>2</sup>. This corresponds to the strength at which the parts may no longer be moved independently.

## Storage

Store between 5 °C to 22 °C [41 and 72 °F] in dry area away from sunlight.



Materials Subject to Bonding

# Compatibility

**Adhesion**—As seen in the substrate adhesion table, the 8333 adheres to a wide variety of materials.

#### Natural **Plastics/Polymers** Ceramics Metals ABS Porcelain Aluminum Latex Leather Brass Acrylic Paper, Fiber Bakelite Chrome EPDM Fabric Copper Steel Rubber Fiberglass Wood NBR (nitrile rubber) Neoprene Nitrile Phenolic Polybutylene Terephthalate Polycarbonate Polyester PVC Styrene-Butadiene rubber

*Note:* The MG 8333 Super Glue is not compatible with contaminants like oil, and greases that may affect adhesion. If contamination is present, clean the surface with a suitable cleaner such as MG Chemicals 4050 Safety Wash, 406B Superwash, or 824 Isopropyl Alcohol.

**Chemical Resistance**—To test the chemical resistance, the adhesive was aged in various chemicals and the strength of the adhesive bond was compared to that of control specimens.

### Retained Adhesive Strength and After Chemical/Solvent Exposure

Chemical/Solvent	<i>Conditions/Temperature</i> (°C)	Exposure Duration (hour)	Percent of Initial Strength
Gasoline	22 °C	500	100%
Isopropanol	22 °C	500	100%
Ethanol	22 °C	500	100%
Freon	22 °C	500	100%
Motor Oil	40 °C	500	100%
Polycarbonate	40 °C @95% RH	500	100%

To remove the 8333 adhesive, you can use acetone.



## Health, Safety, and Environmental Awareness

Please see the 8333 **Safety Data Sheet** (SDS) for details on transportation, storage, handling and other security guidelines.

#### Health and Safety: DANGER: Hazardous Adhesive

Do not get in eyes, on skin, or clothing. Do not breathe vapor. Use with adequate ventilation. Do not use near sparks, heat, or open flames. Contact will result in rapid bonding of tissues and may bond skin-to-skin or to other materials. The cured adhesive presents no known hazard.

#### **HMIS® RATING**

HEALTH:	*	2
FLAMMABILITY:		2
PHYSICAL HAZARD:		1
PERSONAL PROTECTION:		

Approximate HMIS and NFPA Risk Ratings Legend: 0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

## **Application Instructions**

Follow the procedure below for best results.

#### To bond surfaces

- 1. Clean the surface to be bonded and let dry.
- 2. Remove cap.
- 3. Apply the adhesive directly on the surface and immediately hold the surface together for at least 25 seconds until the adhesive has fixtured.

**NOTE:** Remember to recap the syringe promptly after use.

**TIP:** Wiping the surface with a damp cloth prior to application can promote bonding.

#### NFPA® 704 CODES





# Packaging and Supporting Products

Cat. No.	Form	Net Volume		Net Weight		Shipping Weight	
8333-3G	Liquid	50 mL	1.69 fl.oz	3 g	0.1 oz	0.46 kg <sup>a)</sup>	1 lb
8333-20G	Liquid	6 mL	0.20 fl.oz	20 g	1.0 oz	0.46 kg <sup>b)</sup>	1 lb

a) Pack of twenty four

b) Pack of ten

## **Technical Support**

Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at <u>www.mgchemicals.com</u>.

Email: <a href="mailto:support@mgchemicals.com">support@mgchemicals.com</a>

Phone: 1-800-340-0772 Ext. 1030 (Canada, Mexico & USA) 1-905-331-1396 Ext. 1030 (International) Fax: 1-905-331-2862 or 1-800-340-0773

Mailing address: Manufacturing & Support 1210 Corporate Drive Burlington, Ontario, Canada L7L 5R6 **Head Office** 9347–193rd Street Surrey, British Columbia, Canada V4N 4E7

## Warranty

*M.G. Chemicals Ltd.* warranties this product for 12 months from the date of purchase by the end user. *M.G. Chemicals Ltd.* makes no claims as to shelf life of this product for the warranty. The liability of *M.G. Chemicals Ltd.* whether based on its warranty, contracts, or otherwise shall in no case include incidental or consequential damage.

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