

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**

ENVIRONMENT

- ✓ RoHS
- ✓ REACH compliant

Usage Parameters

<i>Properties</i>	<i>Value</i>
Typical Handling Time ^{a)}	10 s
Service Cure ^{a)} @22 °C [72 °F]	>24 h
Cure Type	Humidity
Shelf Life	3 y

a) Assumes 50% relative humidity. The fixture and cure time depend on the humidity, the type of material being bonded, bond gap, and temperature.

Temperature Ranges

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

Principal Components

Name
Ethyl-2-cyanoacrylate

CAS Number
7085-85-0

Properties of Cured 8333

<i>Physical Properties</i>	<i>Method</i>	<i>Value</i>
Color	Visual	Clear
Density @25 °C [79 °C]		1.05 g/cm ³
Lap Shear Strength	ISO 4587 ^{b)}	
(Stainless Steel)	<20 s fixture time	>14.5 N/mm ² [$>2\ 100\ \text{lb/in}^2$]
(Aluminum)	<15 s fixture time	>12.1 N/mm ² [$>1\ 750\ \text{lb/in}^2$]
(ABS)	<10 s fixture time	>6.2 N/mm ² [$>900\ \text{lb/in}^2$]
(PVC)	<5 s fixture time	>6.2 N/mm ² [$>900\ \text{lb/in}^2$]
(Polycarbonate)	<30 s fixture time	>6.2 N/mm ² [$>900\ \text{lb/in}^2$]
(Phenolic Rubber)	<10 s fixture time	>6.2 N/mm ² [$>900\ \text{lb/in}^2$]
(Neoprene)	<5 s fixture time	>5.2 N/mm ² [$>750\ \text{lb/in}^2$]
Butt Joints Tensile Strength (Stainless Steel)	ISO 6922	>12.4 N/mm ² [$>1\ 800\ \text{lb/in}^2$]
<i>Electric Properties</i>	<i>Method</i>	<i>Value</i>
Volume Resistivity	ASTM D 257	$\geq 2 \times 10^{15}\ \Omega\cdot\text{cm}$
Dielectric Dissipation & Constant		<i>dissipation, D</i> <i>constant, k'</i>
Dissipation & Constant @1 kHz	ASTM D 150-98	0.02 2 to 3.5

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

a) N/mm² = MPa; lb/in² = psi

b) The fixture time is the time required to develop a shear strength of 0.1 N/mm². This corresponds to the strength at which the parts may no longer be moved independently.

Storage

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

Compatibility

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

Materials Subject to Bonding

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

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

<i>Chemical/Solvent</i>	<i>Conditions/Temperature (°C)</i>	<i>Exposure Duration (hour)</i>	<i>Percent of Initial Strength</i>
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%

Health, Safety, and Environmental Awareness

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

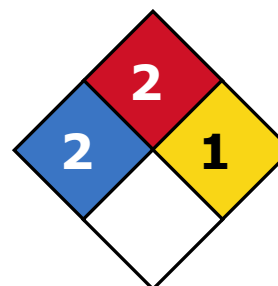
Health and Safety: DANGER: Hazardous Adhesive

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:	

NFPA® 704 CODES



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 or until the adhesive bond has become fixtured (when the bond is strong enough to allow handling without compromising long term strength).

ATTENTION! The *fixture time* depends on the humidity level. On low humidity days, the adhesive takes longer to set.

NOTE: Promptly recap the syringe after use to prevent the adhesive curing at the syringe tip.

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

To remove the 8333 adhesive, you can use acetone.

Packaging and Supporting Products

<i>Cat. No.</i>	<i>Packaging</i>	<i>Net Volume</i>		<i>Net Weight</i>		<i>Shipping Weight</i>	
8333-3G	Bottle	3 mL	0.10 fl oz	3.12 g	0.110 oz	0.36 kg ^{a)}	0.79 lb
8333-20G	Bottle	19 mL	0.65 fl oz	20 g	0.705 oz	0.42 kg ^{b)}	0.93 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 www.mgchemicals.com.

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