



# Permatex<sup>®</sup> Zip Grip<sup>®</sup> GPE 100

<b>Description:</b>	A single component medium viscosity, general purpose cyanoacrylate adhesive for metals, rubber and plastics.
<b>Intended Use:</b>	Industrial Use: Ideal for bonding metals, rubber, o-rings, and most plastics.
<b>Features:</b>	<b>Easy to apply</b> <b>Fixtures in seconds</b> <b>Permanent</b> <b>All purpose [medium viscosity]</b>
<b>Limitations:</b>	Suitability of product is determined by the end user for their application and process.
<b>Typical Physical Properties:</b>	Technical data should be considered representative or typical only and should not be used for specification purposes.

**Cured 7 Days @ 75°F (24°C)**

Adhesive Tensile Shear  
Coefficient of Thermal Expansion (x10<sup>-6</sup>)  
Dielectric Constant  
Dielectric Strength  
Flashpoint  
Full Cure  
Melting Point  
Refractive Index  
Service Temperature Range  
Solubility  
Volume Resistivity

**Typical Values**

3,200 psi (22 MPa) [steel/steel]  
126 in/in.°F (227 cm/cm.°C)  
5.4 @ 1 Kc  
294.6 volts/mil (11.6 kV/mm)  
185°F (85°C)  
24 hours  
329°F (165°C)  
1.49  
-65°F to 200°F (-54 to 93°C)  
Nitromethane, Acetone  
5.3E-14 ohm/cm

**Standard Tests**

Adhesive Tensile Shear ASTM D 1002  
Coef. of Thermal Expansion ASTM D 696  
Dielectric Constant ASTM D 150  
Volume Resistivity, ohm/cm ASTM D 149  
Dielectric Strength, volts/mil ASTM D 149

**Uncured Properties @ 72°F (22°C)**

Base  
Color  
Cure Speed  
Gap Filling  
Military Specification  
Shelf Life  
Specific Gravity  
Viscosity

Ethyl cyanoacrylate  
Colorless liquid  
10-20 sec. (Steel): 10-20 sec. (Plastics): <5 sec  
0.004" (0.1 mm)  
Mil-A-46050C Type II, Class 2  
1 year  
8.85 lb/Gal (1.06 g/cm<sup>3</sup>)  
100 cP

<b>Surface Preparation:</b>	Clean surface by solvent-wiping any deposits of heavy grease, oil, dirt, or other contaminants. Surface can also be cleaned with industrial cleaning equipment such as vapor phase degreasers or hot aqueous baths. ---- CLEANING METHODS ---- <b>STEEL:</b> Vapor degrease or cold-solvent clean (Sand blasting or other preparation is not typically required). <b>ALUMINUM:</b> Abrade with Scotch-Brite™ abrasive pads or steel wool, then clean with solvent. <b>RUBBER:</b> Wipe clean with isopropyl alcohol or solvent. <b>PLASTICS:</b> Lightly abrade shiny, smooth surfaces, then solvent-wipe with suitable solvent such as 1,1,1-trichloroethane, acetone, or VM&P naphtha. Non-shiny surfaces need only be solvent-wiped.
<b>Mixing Instructions:</b>	Mixing is not applicable to this product.

<b>Application Instructions:</b>	1. Apply adhesive directly from bottle (approximately 0.006 g/in <sup>2</sup> (0.93 mg/cm <sup>2</sup> ) is sufficient). 2. Press surfaces together 3. Hold tightly for a few seconds
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**ADDITIONAL PRODUCT INFORMATION**

- Cyanoacrylates generally fixture in a few seconds on most smooth, close-fitting substrates.
- They cure best at room temperature 72°F (22°C)
- Heat does NOT accelerate the cure of Cyanoacrylates
- The gap of the bond line will affect set speed. Smaller gaps tend to increase the speed.
- Activators can be applied to improve set speed but may also impair overall performance

**Storage:** Store in a cool, dry place.

**Compliances:** CID A-A-3097, Type II, Class 2

**Chemical Resistance:** Chemical resistance is calculated with a 7 day, room temp. cure (30 days immersion) @ 75°F (24°C)

1,1,1-Trichloroethane	Excellent
Gasoline (Unleaded)	Excellent
Hydrochloric 10%	Poor
Motor Oil	Excellent
Sodium Hydroxide 10%	Poor

**Precautions:** **FOR INDUSTRIAL USE ONLY:** Please refer to the appropriate Safety Data Sheet prior to using this product.

**Warranty:** ITW Performance Polymers will replace any material found to be defective. Because the storage, handling and application of this material is beyond our control, we can accept no liability for the results obtained.

**Order Information:**

<u>Item No.</u>	<u>Package Size</u>
70450	1 oz. bottle

**Contacts:** [www.itwpp.com](http://www.itwpp.com)

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