

# Permatex® Zip Grip® GPE 100

**Description:** A single component medium viscosity, general purpose cyanoacrylate adhesive for metals, rubber and plastics.

**Intended Use:** Ideal for bonding metals, rubber, o-rings, and most plastics.

**Product features:**  
**Easy to apply**  
**Fixtures in seconds**  
**Permanent**  
**All purpose [medium viscosity]**

**Limitations:**

**Typical Physical Properties:** *Technical data should be considered representative or typical only and should not be used for specification purposes.*

**Cured 7 days @ 75° F**

<b>Adhesive Tensile Shear</b>	<b>3,200 psi [steel/steel]</b>
<b>Coefficient of Thermal Expansion</b>	<b>.000126 in./in./°F</b>
<b>Dielectric Constant</b>	<b>5.4 @ 1 Kc</b>
<b>Dielectric Strength</b>	<b>11.6 KV/mm</b>
<b>Flashpoint</b>	<b>185°F</b>
<b>Melting Point</b>	<b>329°F</b>
<b>Refractive Index</b>	<b>1.49</b>
<b>Service Temperature Range</b>	<b>-65°F to 200°F</b>
<b>Shelf Life</b>	<b>1 year</b>
<b>Solubility</b>	<b>Nitromethane, Acetone,</b>
<b>Volume Resistivity</b>	<b>5.3E-14 ohm/cm</b>

**TESTS CONDUCTED**

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**

<b>Base</b>	<b>Ethyl cyanoacrylate</b>
<b>Color</b>	<b>Colorless liquid</b>
<b>Cure Speed</b>	<b>10-20 sec. (Steel): 10-20 sec. (Plastics): &lt;5 se</b>
<b>Gap Filling</b>	<b>0.004"</b>
<b>Military Specification</b>	<b>Mil-A-46050C Type II, Class 2</b>
<b>Specific Gravity</b>	<b>1.06 g/cc</b>
<b>Viscosity</b>	<b>100 cps</b>

**Surface Preparation:** 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 ----

**STEEL:**  
 Vapor degrease or cold-solvent clean (Sand blasting or other preparation is not typically required).

**ALUMINUM:**  
 Abrade with Scotch-Brite™ abrasive pads or steel wool, then clean with solvent.

**RUBBER:**  
 Wipe clean with isopropyl alcohol or solvent.

**PLASTICS:**  
 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.

**Mixing Instructions:** Mixing is not applicable to this product.

**Application Instructions:**

1. Apply adhesive directly from bottle [approx .006 gms per sq. in is sufficient]
2. Press surfaces together
3. Hold tightly for a few seconds

**ADDITIONAL PRODUCT INFORMATION**

- Cyanoacrylates fixture in a few seconds on most smooth, close fitting substrates
- They cure best at room temperature [72°F]
- 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*

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

**Precautions:**

Please refer to the appropriate material safety data sheet (MSDS) prior to using this product.

**For technical assistance, please call 1-800-933-8266  
FOR INDUSTRIAL USE ONLY**

**Warranty:**

Devcon 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.

**Disclaimer:**

All information on this data sheet is based on laboratory testing and is not intended for design purposes. ITW Devcon makes no representations or warranties of any kind concerning this data.

**Order Information:**

**70450 1 oz.**  
**70461 1 lb.**

**Distributed by:**

All-Spec Industries 800-537-0351 (phone)  
Wilmington, NC 800-379-9903 (fax)  
www.all-spec.com sales@all-spec.com