

**TESTS CONDUCTED** 

Adhesive Tensile Shear ASTM D 1002

Volume Resistivity, ohm/cm ASTM D 149

Coef. of Thermal Expansion ASTM D 696

Dielectric Strength, volts/mil ASTM D 149

Dielectric Constant ASTM D 150





## **Technical Data Sheet**

5/21/2008

## Permatex® Zip Grip® TE 2400

Intended Use:

Exceptional thermal shock performance

Temperature-resistant to 280°F

Bonds dissimilar substrates

Permanent

Toughened Ethyl High Viscosity [Clear]

High impact resistance

Fills large gaps

Enhanced toughness to peel and shock loads

**Humidity and water resistant** 

Limitations:

Description:

**Product** 

features:

Not recommended for use on glass due to substrate weakness

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

A high-viscosity, rubber-toughened instant adhesive with exceptional flexibility and extended temperature resistance

#### Cured 7 days @ 75° F

Adhesive Tensile Shear 3,700 psi
Coefficient of Thermal Expansion .00012 in./in./°F
Dielectric Constant 5.4 @ 1KHz

Dielectric Strength 295 volts/mil @ 1KHz

Flashpoint 185 °F
Impact Resistance 8 ft.lb./in.(2)
Melting Point 329 °F
Peel Strength 10 pli
Refractive Index 1.49

Service Temperature Range -65 °F to 280 °F

Solubility Nitromethane, Acetone Volume Resistivity 5.3E-14 ohm/cm

## Uncured

Base Ethyl cyanoacrylate
Color Colorless liquid

Cure Speed 40-70 sec.(Steel); 25-50sec. (Plastics); 25-50sec.

Full Cure 24 hrs. Gap Filling 0.009"

Military Specification Mil-A-46050C Type II, Class 3

 Shelf Life
 1 year

 Specific Gravity
 1.06 g/cc

 Viscosity
 2,400 cps

#### 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 naptha. 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 cyanaoacrylates
- -The gap of the bond line will affect set speed. Smaller gaps tend to increase the speed. -Activators can be appied 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 3

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:

72261 1 lb. 72250 1 oz.

**TESTS CONDUCTED** 

Coef. of Thermal Expansion ASTM D 696

Dielectric Strength, volts/mil ASTM D 149

Volume Resistivity, ohm/cm ASTM D 149

Adhesive Tensile Shear ASTM D 1002

Dielectric Constant ASTM D 150



## **Technical Data Sheet**

5/21/2008

# Permatex® Zip Grip® GPE 3

**Description:** A low-viscosity, moisture-curing, general purpose instant adhesive for tight-fitting parts

Intended Use: Bonding rubber weatherstripping, fixturing rubber gaskets, splicing o-rings, repairing plastics and metals

Product Fixtures in seconds features: Permanent Easy to apply

Highly resistant to aging and weathering

Limitations: Not recommended for use on glass due to substrate weakness

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

**Adhesive Tensile Shear** 3,200 0.00012 in./in./°F Coefficient of Thermal Expansion 5.4 @ 1KHz **Dielectric Constant Dielectric Strength** 11.6 KV/mm 185°F **Flashpoint Melting Point** >329°F **Peel Strength** 2 pli **Refractive Index** 1.49

Service Temperature Range -65° to 200°F
Solubility Nitromethane, Acetone

Volume Resistivity 5.3E-14 ohm/cm

## Uncured

Base Ethyl cyanoacrylate
Color Colorless liquid

Cure Speed 5-10 sec. (Steel); 3-5 sec. (Plastics): <2 sec. (

Full Cure 24 hrs Gap Filling 0.003"

Military Specification Mil--A-46050C Type II Class 1

Shelf Life 1 year
Specific Gravity 1.06 g/cc
Viscosity 3 cps

#### 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.

#### RURRER

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 naptha. 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 (approximately .006 grams per sq. in. is sufficient).
- 2. Press surfaces together
- 3. Hold tightly for a few seconds

## ADDITIONAL PRODUCT INFORMATION

- Cyanoacrylates generally 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 1

Chemical Resistance:

Rating chemical resistance is not necessary for this product.

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 70145 2 gm Information: 70161 1 lb.

70144 14 gm