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## Technical Data Sheet

# Permatex® General Purpose Instant Adhesive – E1500

INDUSTRIAL

### PRODUCT DESCRIPTION

Permatex® General Purpose Instant Adhesive – E1500 is a medium viscosity, fast curing, single component ethyl cyanoacrylate designed specifically to assemble difficult-to-bond materials which require uniform stress distribution and strong shear adhesion. The product provides rapid bonding of a wide range of materials including plastic, metals, and elastomers.

**S.I.N.: 834-300**

### TYPICAL APPLICATIONS

Permatex® General Purpose Instant Adhesive E1500 is particularly suited for bonding porous materials such as wood, cork, paper, leather or fabric.

### DIRECTIONS FOR USE

1. Protect the work surface against accidental spills, as cyanoacrylates can mark finishes and fabrics.
2. Clean and ensure a close fit on the surfaces to be bonded.
3. Apply the glue to one of the surfaces. Use sparingly, one square inch of surface area requires only one drop of glue.
4. Hold the surfaces to be bonded together for 15 to 30 seconds. No clamping is required. **DO NOT REPOSITION THE PARTS.**
5. Replace the cap, and store the adhesive in a cool spot.
6. Allow the parts to cure overnight.

### For Cleanup

1. To remove Super Glue, use Super Glue Remover, acetone or nail polish remover that contains acetone.
2. To remove from hard surfaces such as Formica®, saturate a soft cloth or paper towel with the acetone and allow to rest on the spot for about 10 – 15 minutes. After the Super Glue is removed, a white or light colored spot may be left which is easily removed by applying mineral oil to the spot to restore the color.
3. Clean hands with acetone then use Permatex® brand hand cleaners.

### PROPERTIES OF UNCURED MATERIAL

	Typical Value
Chemical Type	Ethyl cyanoacrylate
Appearance	Clear liquid
Odor	Mild pungent
Specific Gravity	1.08
Flash Point, TCC, °F	>185
Viscosity (cps)	1100 - 1600

### TYPICAL CURING PERFORMANCE

Under normal conditions, the surface moisture initiates the hardening process. Although full functional strength is developed in a relatively short time, curing will continue for at least 24 hours before full chemical/solvent resistance is developed.

### Cure Speed vs. Substrate

The rate of cure will depend on the substrate used. The table below shows the fixture time achieved in different materials at 22°C, 50% relative humidity. This is defined as the time to develop a shear strength of 0.1 N/mm<sup>2</sup> (14.5 psi) tested on specimens per ASTM D1002.

Substrate	Fixture Time, seconds
Steel	<45
ABS	<40

### Cure Speed vs. Bond Gap

The rate of cure will depend on the bondline gap. High cure speed is favored by thin bond lines. Increasing the bond gap will slow down the rate of cure.

### TYPICAL ENVIRONMENTAL RESISTANCE

Temperature Resistance	Typical Values
Continuous, °C (°F)	-54 to 82 (-65 to 180)
Shear Strength, psi	2900 to 3400

### Chemical / Solvent Resistance

The product retains effective properties when in contact with most solvents.

Aged 1000 hours under conditions indicated and tested at conditions indicated.

Environment	% of initial strength
Motor Oil (40°C)	80
Gasoline (RT)	100
Ethanol (RT)	100
Isopropyl Alcohol (RT)	100
Heat/Humidity 95% RH (40°C)	50
Heat Age (80°C)	80

### GENERAL INFORMATION

**This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.**

**For safe handling information on this product, consult the Material Safety Data Sheet, (MSDS).**

**ORDERING INFORMATION**

<b>Part Number</b>	<b>Container Size</b>
41650	1 oz bottle
41661	1 lb bottle

**STORAGE**

Products shall be ideally stored in a cool, dry location in unopened containers at a temperature between 8° to 28°C (46° to 82°F) unless otherwise labeled. Optimal storage is at the lower half of this temperature range. To prevent contamination of unused product, do not return any material to its original container.

**NOTE**

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