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Technical Data Sheet

Permatex® Universal Cyanoacrylate Adhesive (high Viscosity).

PRODUCT DESCRIPTION

Permatex Universal Cyanoacrylate Adhesive (high viscosity) is a high viscosity modified Ethyl Cyanoacrylate adhesive. Permatex Universal Cyanoacrylate Adhesive (high viscosity) is particularly well suited for bonding porous materials where fast cure speed is required.

PRODUCT BENEFITS

- Fast cure speed
- Surface insensitive
- High viscosity for porous surfaces

DIRECTIONS FOR USE

1. Both surfaces must be smooth, clean, dry and free of oil, grease, etc.
 2. USE EXTREME CARE WHEN OPENING. Hold bottle upright, pointing away from face. Remove nozzle.
 3. Apply adhesive to one surface, about one drop per square inch. Spread evenly.
 4. Immediately place the second surface in contact with the first surface and press together.
 5. Keep light pressure on surfaces for 15 seconds or until bond sets. DO NOT REPOSITION THE PARTS.
 6. Allow to completely harden, for best results, overnight.
- NOTE: Not suitable for untreated polyethylene or polypropylene products.

FOR CLEANUP

1. To remove Permatex Universal Cyanoacrylate Adhesive (high viscosity), 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 Permatex Universal Cyanoacrylate Adhesive (high viscosity) is removed, a white or light coloured spot may be left which is easily removed by applying mineral oil or olive oil to the spot to restore the colour.
3. Clean hands with Super Glue Remover or acetone then use Permatex Fast Orange hand cleaner.

PROPERTIES OF UNCURED MATERIAL

	Typical Value
Chemical Type	Ethyl
Appearance	Clear
Specific Gravity	1.08
Viscosity cPs ¹	
- range	1275-1650
- typical value	1500
Tensile Strength ² , typical (N/mm ²)	21
Fixture Time (seconds)	5-60
Full Cure (hours)	24
Flash point (°C)	>85
Shelf Life @ 5 °C (months)	12
Max Gap Fill (mm)	0.20
Operating Temperature Range (°C)	-50 to +80

¹Brookfield LVF, spindle 3, speed 30 rpm

²ISO 6922

TYPICAL CURING PERFORMANCE

Substrate	Cure time, seconds.
Steel/Steel	<60
ABS/ABS	<20
Rubber/Rubber	<15
Wood (balsa)	<3

Cure speed vs. substrate

The cure speed of cyanoacrylates vary according to the substrate to be bonded. Acidic surfaces such as paper and leather may have longer cure times than most plastics and rubbers. Some plastic with very low surface energies, such as polyethylene, polypropylene, PTFE and silicone rubber may require the use of a primer.

Cure speed vs. bond gap

Permatex Universal Cyanoacrylate Adhesive (high viscosity) will give best results on close fitting parts. A thinner bond line will give faster polymerisation and a strong bond. Large bond gaps will result in a slower cure and lower bond strength. Permatex Cyanoacrylate Activator may be used to increase cure speed.

Cure speed vs. activator

Permatex Cyanoacrylate Activators may be used in conjunction with Permatex Universal Cyanoacrylate Adhesive (high viscosity) where cure speed needs to be accelerated. Cure speeds of less than 2 seconds can be obtained. The use of an activator may reduce the final bond strength by up to 30%. If bond strength is critical testing on the parts is recommended to measure the effect.

TYPICAL ENVIRONMENTAL RESISTANCE

Hot strength

Permatex Universal Cyanoacrylate Adhesive (high viscosity) is suitable for use at a constant temperature up to 80 °C. At 80 °C the bond will be approximately 70% of the strength at 21 °C. The bond strength at 100 °C is approximately 50% of full strength at 21 °C.

Heat ageing

Permatex Universal Cyanoacrylate Adhesive (high viscosity) retains over 90% of its strength when heated to 80 °C for 90 days and then tested at 21 °C. Heating the bond to 100 °C and then testing at 21 °C gives bond strength of approximately 50% of initial strength.

Chemical / solvent resistance

Permatex Cyanoacrylates exhibit excellent chemical resistance to most oils and solvents including motor oil, leaded petrol, ethanol, propanol and Freon. Cyanoacrylates are not resistant to high levels of moisture or humidity over time.

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

Part Number	Container Size
43120A	20 g bottle
43150A	50 g bottle
43100A	500 g bottle

STORAGE

Store in a cool area out of direct sunlight. For optimum storage stability refrigerate to 5 °C.

NOTE

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