TECHNICAL DATA SHEET FOR PROCURE PC24

TYPICAL APPLICATIONS

PC 24 is specially formulated for the bonding of plastics, rubbers, wood, paper, leather, metals and other common substrates.

PC 24 relies less on surface moisture for cure speed than standard cyanoacrylates. Recommended for use on close-fitting parts and fairly smooth, even surfaces

PRODUCT DESCRIPTION

PC 24 is a medium viscosity modified Ethyl Cyanoacrylate adhesive. PC24 is suitable for bonding a very wide range of materials, including some porous ones, where a fast cure speed is required.

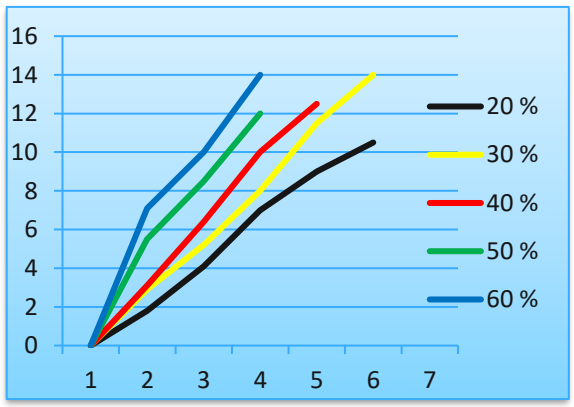
PROPERTIES OF UNCURED MATERIAL

Chemical type		Ethyl
Appearance		Clear
Specific Gravity		1.06
Viscosity cPs[1]		
– range		80-120
– typical value		100
Tensile Strength[2]	(N/mm^2)	21
Fixture Time	(secs)	3-20
Full Cure	(hours)	24
Flash Point	(°C)	> 85
Shelf Life @ 5°C	(months)	12
Max Gap Fill	(mm)	0.15
Operating Temperature Range	(°C)	-50 to +80

TYPICAL CURING PERFORMANCE

Typical Speed:

Steel/steel	<20 seconds
ABS/ABS	<10 seconds
Rubber/Rubber	<5 seconds
Wood (balsa)	<3 seconds



CURE VS HUMIDITY

CURE SPEED VS. ENVIRONMENTAL CONDITIONS

Cyanoacrylates require surface moisture on the substrates in order to initiate the curing mechanism. The speed of cure is reduced in low-humidity conditions. Low temperatures will also reduce cure speed. All figures relating to cure speed are tested at 21°C.

CURE SPEED VS.SUBSTRATE

The speed of cure of Cyanoacrylates varies according to the substrates to be bonded. Acidic surfaces such as paper and leather will have longer cure times than most plastics and rubbers. Some plastics with very low surface energies, such as polyethylene, polypropylene and Teflon® require the use of Procure 77 Primer
(See PC 77 TDS for further info).

CURE SPEED VS.ACTIVATOR

Activators 780 and 750 may be used in conjunction with cyanoacrylates where cure speed needs to be accelerated.

Cure speeds of less than 2 seconds can be obtained with most cyanoacrylates.

The use of an activator can reduce the final bond strength by up to 10% testing on the parts to measure the effect is recommended.

CURE SPEED VS. BOND GAP

PROCURE/REACT Cyanoacrylates give best results on close fitting parts. The product should be applied in a very thin line in order to ensure rapid polymerisation and a strong bond. Excessive bond gaps will result in slower cure speeds. PROCURE/REACT Cyanoacrylate Activators may be used to greatly increase cure speeds (see PC780 and PC750 TDS for further info).

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TYPICAL ENVIRONMENTAL RESISTANCE HOT STRENGTH

PROCURE/REACT cyanoacrylates are suitable for use at temperatures 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.

CHEMICAL / SOLVENT RESISTANCE

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.

STORAGE

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

REMOVAL OF CURED CYANOACRYLATE

Cured cyanoacrylate may be removed from most substrates, and parts disassembled, with a debonder.
It is not possible to fully remove cyanoacrylate from fabrics

PRESENTATION Cyanoacrylates are supplied in 20g, 50g, 500g and bulk packs

DIRECTIONS FOR USE

Bond speed is very fast so ensure that parts are properly aligned before bonding.

Activators may be required if there are gaps or porous surfaces. Some plastics may require application of primer.

Ensure parts are clean, dry and free from oil and grease.

Product is normally hand applied from the bottle. Apply sparingly to one surface and press parts firmly together until handling strength is achieved. As a general rule, as little cyanoacrylate as possible should be used – over application will result in slow cure speed and lower bond strength.

Please contact your representative for further advice on dispensing solutions.

GENERAL INFORMATION

For safe handling of this product consult the Material Safety Data Sheet.

NOTES AND DISCLAIMER

The information contained herein is produced in good faith and is believed to be reliable but is for guidance only. CYANOTEC Ltd. and its agents cannot assume liability or responsibility for results obtained in the use of its product by persons whose methods are outside or beyond our control. It is the user's responsibility to determine the suitability of any of the products and methods of use or preparation prior to use mentioned in our literature and furthermore the user's responsibility to observe and adapt such precautions as may be advisable for the protection of personnel and property in the handling and use of any of our products.

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