



Product Description

Procure™ PC50 is a multi purpose, fast curing, medium to high viscosity cyanoacrylate. PC50 exhibits some gap filling properties. It will bond almost any substrate, including most plastics, rubbers, wood, paper, leather and metals to themselves and each other.

Physical Properties

Liquid State		Cured State	
Base	Ethyl Cyanoacrylate	Colour	Clear
Colour	Clear	Specific Gravity (20°C)	1.1-1.3
Specific Gravity (20°C)	1.05-1.06	Service Temperature	-55 °C to 80°C
Refraction Index (n 20D)	1.439	Refractive Index (n 20D)	1.49
Flash Point (°C)	>80°C	Dielectric Constant (at 10MHz)	3.5
Shelf Life	12 months	Soluble in Acetone, Nitromethane.	
Boiling Point	65°C at 16mmHg		
Viscosity (cP)	300-500		

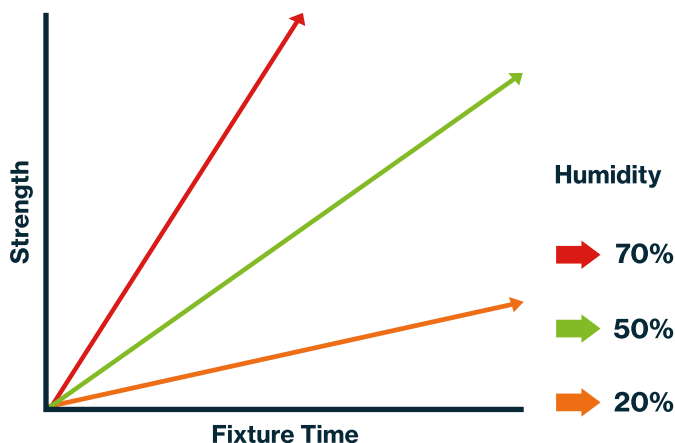
Bond Strength

(Tensile shear strength, cured for 24 hours at 20-25°C)

Substrate	N/mm ²
Rigid PVC to Rigid PVC	5 to 7
ABS to ABS	5 to 7
Nitrile Rubber to Nitrile Rubber	5 to 10
Stainless steel to Stainless steel	20 to 22
Aluminium to Aluminium	17 to 19

Fixture Time vs. Humidity

Cyanoacrylates require surface moisture on the substrates in order to initiate the curing mechanism. The speed of cure is reduced in low-humidity conditions.



The graph depicted is not scientific and is for guidance only.

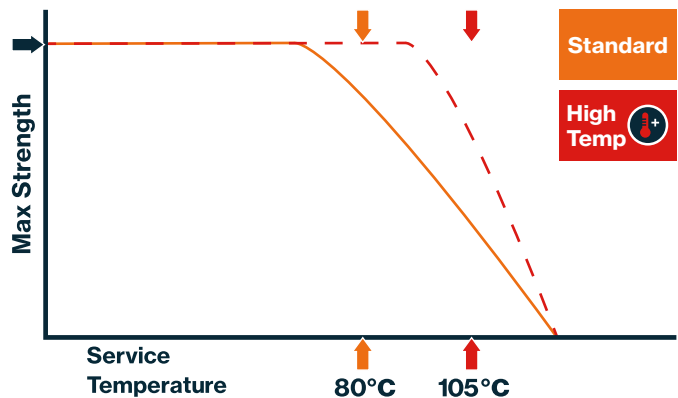
Typical Fixture Time Performance

Substrate	Seconds	Conversions	
Steel to Steel	20-25	(°C x 1.8) + 32	°F
ABS to ABS	10-12	N/mm ² ÷ 0.098	kg/cm ²
Nitrile Rubber to Nitrile Rubber	3-5	N/mm ² x 145	psi
Wood to Wood (balsa)	>60	MPa x 145	psi
		mPa.s	cP

(Full cure and maximum strength achieved after 24 hours)

Hot Strength

Procure™ 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.



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Chemical/Solvent Resistance

Procure™ cyanoacrylates exhibit excellent chemical resistance to most oils and solvents including motor oil, leaded petrol, ethanol and isopropanol. Cyanoacrylates are generally not resistant to high levels of moisture or humidity over extended periods of time.

Fixture Time vs. Bond Gap

Procure™ 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 fixture times.

Fixture Time vs. Activator

Procure™ activators PC750, PC780 and PC790 may be used with cyanoacrylates where a faster cure speed is required. Fixture times of less than 2 seconds can be obtained with most cyanoacrylates. Testing on the parts to measure the effect is recommended.

SCAN FOR SAFETY DATA SHEET



Directions For Use

1. Make sure the surfaces to be bonded are clean and dry.
2. Dispense adhesive to one surface only. Apply only enough to leave a thin film after compression.
3. Press parts together and hold firmly for a few seconds. (*Maximum strength is achieved in 24 hours*).
4. Procure™ activator can be used to cure exposed adhesive outside of the joint, to help prevent blooming.
5. Wipe off excess adhesive from the top of the container and recap.

Priming

Procure™ PC77 primer is recommended for use on low energy plastic surfaces such as polyethylene, polypropylene, PTFE and thermoplastic rubber materials.

Apply to one surface only. PC77 also has a mild activating effect which may accelerate the cure speed of cyanoacrylate adhesives.

Debonding

Cured cyanoacrylate may be removed from most substrates, and parts disassembled, with Procure™ PC68 debonder - however, ensure to test compatibility of the substrate with PC68 first as this may dissolve some plastics.

It is not possible to fully remove cyanoacrylate from fabrics.

Dispensing

Factors that affect dispensing are pressure, time and needle size. As a general reference low viscosity liquid would need a small needle diameter and less pressure, a high viscosity liquid would need a larger needle diameter (tapered recommended) with higher pressure to dispense.

		Recommended Tip for Hand Dispensing										
		← More					Less →					
Gauge Chart	Size Indicator	•	•	•	•	•	•	•	•	•	•	
	Metal Tip	17	18	19	20	21	22	23	24	25	26	27
	Tapered Tip		18		20		22			25		
	Colour		Green		Pink		Purple		Blue		Orange	

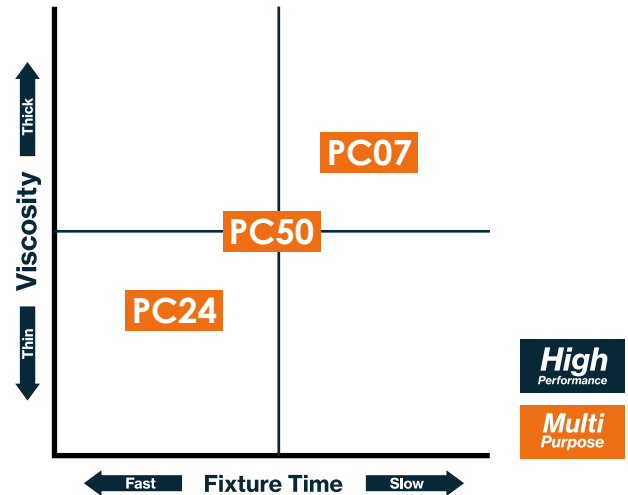
This chart is a recommended gauge for hand dispensing based on the product viscosity, other factors not mentioned above may also affect dispensing. Tip colour may vary.

Disclaimer

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Alternative Product Suggestions

The following suggested products will allow adjustments to the fixture time performance, and viscosity if needed.



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Storage

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

General Information

For information on safe handling of this product consult the Safety Data Sheet (SDS).

SCAN FOR FULL PROCURE RANGE

