



Technical Data Sheet Art. No. (9808070917)

# Polycraft 400

Medium Viscosity Ethyl Cyanoacrylate Modified Adhesive

Moisture Cure (Air contact)	<b>3-20</b> Seconds (At 21°c)	<b>24</b> Hours (At 21°c)	CLEAR	100 cps (Typical)	(21°c)	-50°c To +80°c
Cure Type	Fixture Time	Full Cure	Appearance	Hardness	Working Temperature	Operating Temperature

# **Key Features**

- High Viscosity
- Air Curing
- Ultra Fast Setting
- Long Shelf life
- Versatile Use
- Can be used to Fill Gaps
- Good Heat Resistant
- Chemical Resistant

Can be used on:

Metals
Paper

- Plastics (Thermoplastic & Thermoset)
  - Rubbers Wood

# **Technical Overview**

Properties	Unit	Value
Appearance		Clear
Specific Gravity	(sg)	1.06
Viscosity (cPs)	(brookfield)	
- Range		80-120
- Typical Value		100
Tensile Strength	(n/mm2)	21
Fixture Time	(Seconds)	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 Applications

Polycraft 400 is an ultra fast setting medium viscosity ethyl cyanoacrylate modified adhesive,

Specifically formulated for bonding metals, paper, plastics, rubber, wood and other common substrates including porous surfaces

Polycraft 400 is also has excellent gap filling capabilities.

# Curing Time

Steel / Steel	<20 Seconds				
ABS / ABS	<10 Seconds				
Rubber / Rubber	<5 Seconds				
Wood (Balsa)	<3 Seconds				
(Typical Speed)					

# **Curing Speed Note**

Polycraft adhesives require surface moisture to initiate the cure. Cure speeds are reduced in low humidity.

Low temperatures will also reduce cure speed.

# **Key Information**

### **Curing Substrates**

The speed of cure will vary according to the substrates to be bonded. Acidic surfaces such as paper or leather will have a longer curing time that most plastics or rubbers. Low surface energy plastics such as polyethylene / polypropylene require a promoter to aid adhesion.

# Gap Filling

Polycraft adhesives give best results on close fit parts. Applied in a thin line to ensure rapid polymerisation and a strong bond. Excessive sized gaps will result in a slower cure speed. Polycraft CA700 / CA800 activator sprays may be used to greatly increase the cure speeds.

# Activators

Polycraft CA700 / CA800 activator sprays can be used in conjunction with the Polycraft 400 for accelerated cure speeds. Speeds of less than 2 seconds can be obtained. Bond strength may be reduced by upto 30% when activators are used.

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**Moisture Cure** (Air contact)

3-20 Seconds

Cure Type

(At 21°c) **Fixture Time** 

24 Hours (At 21°c) Full Cure



(21°c) Working

Temperature

То +80°c Operating

-50°c

# Temperature

# **Key Information**

### **Heat Resistance**

Polycraft adhesives are suitable for use at temperatures up to 80°c. At 80°c the bond will be approximately 70% of the strength compared to that at 21°c, bond strength at 100°c is approximately 50%

# **Chemical Resistance**

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

# Storage

Store in a cool area and out of direct sunlight. Refrigeration to 5°c gives optimum storage stability. (Not suitable for storage in a fridge were foodstuffs are stored)

# Usage

• Bond speed is ultra fast so ensure parts are properly aligned before bonding.

Activators usually required for gap filling or porous surfaces.

• Ensure parts are clean, dry and free of oil and grease as bond is likely to fail.

 Hand applied from bottle, apply sparingly to one surface and press parts firmly together until handling strength is achieved.

 Rule of thumb : use as little as possible, over use will delay cure speed and lower bond strength.

# Safety Precautions

Safety First! Goggles, gloves and appropriate mask whilst working in a well ventilated area is highly recommended. Always read the SDS before use.

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