

# ALTECO

Industrial Adhesives Catalog

## *Perfecting the Power to Connect with a Single Drop*

Speed × Power  
Cyanoacrylate Adhesives

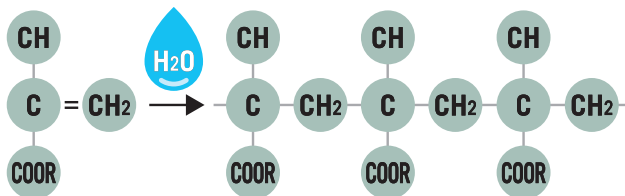


# Speed & Power

## Cyanoacrylate Adhesives



We continue the challenge of developing people and the environmental friendly adhesives



After the substrates are bonded together and the cyanoacrylate monomer (Cyanoacrylate adhesive) is spread into a thin layer, the cyanoacrylate monomer reacts with the trace amounts of moisture on the surface of the substrates. The cyanoacrylate monomer is instantly cured to develop strong adhesion.

- Instant bonding** ..... Bond and fix in seconds. Saving work time. Easy integration into the automated production lines.
- Excellent Adhesion** ..... Strong adhesion to a wide range of materials in industrial uses.
- One - component, room temperature curing** ... Simply apply the adhesive and mate the parts together. Cures at room temperature, requiring no special equipment.
- Solvent Free** ..... Solvent free and low toxicity. The workplace environmentally friendly.
- Electrical Insulation** ..... No electric conductivity. Excellent insulator.
- High Quality Finish** ..... Transparent. Wide viscosity range - low viscosity to gel. High quality finish tailored to applications and materials.



# Cyanoacrylate Adhesives

## For Metal Bonding, Chemical Resistance

Excellent adhesion to metal and plated surfaces.  
Superior chemical resistance.

Category		1		
Product Number		M	MR	MX13
Curing Type		Standard	Standard	Standard
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		3	15	500
Hardness (Shore D)		90	90	90
Set Time	Steel	15sec	15sec	20sec
	Aluminum	15sec	15sec	20sec
	ABS	10sec	10sec	10sec
	PMMA	10sec	10sec	10sec
	Unplasticized PVC	10sec	10sec	20sec
	Polycarbonate	10sec	10sec	20sec
	Chloroprene Rubber	5sec	5sec	5sec
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	25	25	25
	Aluminum	13	16	16
	ABS	6*	6*	6*
	PMMA	6*	6*	6*
	Unplasticized PVC	6*	6*	6*
	Polycarbonate	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Volume	20g	○	○	○
	50g	○	○	○
	100g	○	○	○
	500g	○	○	○
	1kg	○	○	○

\* Material failure

In accordance with JIS K6861 (1995), Testing methods for cyanoacrylate adhesives. In accordance with JIS K6852 (1994), Test method for compressive shear strength of adhesives.

## For General Use

ALTECO standard cyanoacrylate adhesive.  
Excellent adhesion to metal, rubber, and plastics.

Category		2		
Product Number		EE	E50	V2
Curing Type		Standard	Standard	Standard
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		3	75	2000
Hardness (Shore D)		85	85	85
Set Time	Steel	15sec	20sec	30sec
	Aluminum	15sec	20sec	30sec
	ABS	10sec	10sec	15sec
	PMMA	10sec	10sec	20sec
	Unplasticized PVC	10sec	20sec	25sec
	Polycarbonate	10sec	20sec	30sec
	Chloroprene Rubber	5sec	5sec	15sec
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	15	20	20
	Aluminum	8	12	12
	ABS	6*	6*	6*
	PMMA	6*	6*	6*
	Unplasticized PVC	6*	6*	6*
	Polycarbonate	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Volume	2g×6	○		
	20g	○	○	○
	50g	○	○	○
	100g	○	○	○
	500g	○	○	○
	1kg	○	○	○

\* Material failure

## Bonding Procedure

## User-Friendly

### ●For Safe and Reliable Bonding



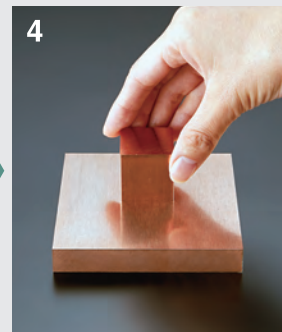
Remove dust, moisture, rust, and oil from the bonding surfaces.



Hold the cap upward and turn counterclockwise.  
\* Do not squeeze the container or the liquid may spurt out. Keep the nozzle away.



Apply a small quantity to one side of the bonding area. Avoid excess application. The excessive adhesive may delay set time and cause blooming.



Do not spread the adhesive with your fingers. Simply press the bonding surfaces together to distribute the adhesive evenly and lightly secure them in place. The bond will reach ultimate strength within 1 to 3 hours after application.





## For Difficult-to-Bond Materials

Excellent adhesion to low energy surfaces such as EPDM and soft PVC, which have traditionally been considered difficult-to-bond.

## Materials that are Difficult to Bond with Standard Products



Category		2			
Product Number		D	Z125	88	Z114
Curing Type		Fast	Ultra-Fast	Fast	Ultra-Fast
Appearance		Transparent	Transparent	Transparent	Transparent
Viscosity (mPa·s)		3	3	3	3
Hardness (Shore D)		85	85	85	85
Set Time	Steel	5sec	3sec	5sec	2sec
	Aluminum	5sec	3sec	5sec	2sec
	ABS	3sec	3sec	3sec	2sec
	PMMA	3sec	3sec	3sec	2sec
	Unplasticized PVC	5sec	5sec	5sec	3sec
	Polycarbonate	3sec	3sec	3sec	2sec
	Chloroprene Rubber	3sec	3sec	3sec	2sec
	EPDM	3sec	3sec	3sec	2sec
	Wood (Birch)	—	—	Polyacetal 15sec	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	15	15	15	15
	Aluminum	8	8	8	8
	ABS	6*	6*	6*	6*
	PMMA	6*	6*	6*	6*
	Unplasticized PVC	6*	6*	6*	6*
	Polycarbonate	9*	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*	0.5*
	EPDM	0.5*	0.5*	0.5*	0.5*
	Wood (Birch)	—	—	Polyacetal 6*	—
Volume	2g×6	○		○	
	20g	○	○	○	○
	50g	○	○	○	○
	100g	○	○	○	○
	500g	○	○	○	○
	1kg	○	○	○	○

\* Material failure

## Ultra-Fast Curing

Fast curing speed and excellent adhesion to low energy surfaces.

Category		2						
Product Number		EZ3	EZ20	EZ100	EZ300	EZ500	EZ800	EZ1500
Curing Type		Ultra-Fast	Ultra-Fast	Ultra-Fast	Ultra-Fast	Ultra-Fast	Ultra-Fast	Ultra-Fast
Appearance		Transparent	Transparent	Transparent	Transparent	Transparent	Transparent	Transparent
Viscosity (mPa·s)		3	20	100	300	500	800	1500
Hardness (Shore D)		85	85	85	85	85	85	85
Set Time	Steel	2sec	2sec	2sec	3sec	3sec	3sec	3sec
	Aluminum	2sec	2sec	2sec	3sec	3sec	3sec	3sec
	ABS	2sec	2sec	2sec	3sec	3sec	3sec	3sec
	PMMA	2sec	2sec	2sec	3sec	3sec	3sec	3sec
	Unplasticized PVC	3sec	3sec	3sec	5sec	5sec	5sec	5sec
	Polycarbonate	2sec	2sec	2sec	3sec	3sec	3sec	3sec
	Chloroprene Rubber	2sec	2sec	2sec	3sec	3sec	3sec	3sec
	EPDM	2sec	2sec	2sec	3sec	3sec	3sec	3sec
	Wood (Birch)	30sec	30sec	20sec	20sec	20sec	30sec	30sec
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	15	15	20	20	20	20	20
	Aluminum	8	8	12	12	12	12	12
	ABS	6*	6*	6*	6*	6*	6*	6*
	PMMA	6*	6*	6*	6*	6*	6*	6*
	Unplasticized PVC	6*	6*	6*	6*	6*	6*	6*
	Polycarbonate	9*	9*	9*	9*	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*
	EPDM	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*	0.5*
	Wood (Birch)	8	8	10*	10*	10*	10*	10*
Volume	20g	○	○	○	○	○	○	○
	50g	○	○	○	○	○	○	○
	100g	○	○	○	○	○	○	○
	500g							
	1kg							

\* Material failure

We take every precaution to ensure that our product stock is well-managed. However, we recommend confirming availability in advance, especially if your order is time-sensitive.

# Cyanoacrylate Adhesives

## For Wood and Porous Materials

Fast curing. Excellent adhesion to wood and porous materials.

## For Bonding Liquid-Absorbent Materials, such as Wood and Porous Materials

### ● Comparison - Absorption to Wood



Category		2				
Product Number		W1	W200X	W500X	W1000X	W2
Curing Type		Fast	Fast	Fast	Fast	Fast
Appearance		Transparent	Transparent	Transparent	Transparent	Transparent
Viscosity (mPa·s)		150	150	500	1000	1700
Hardness (Shore D)		85	85	85	85	85
Set Time	Steel	10sec	5sec	15sec	15sec	20sec
	Aluminum	15sec	10sec	15sec	15sec	25sec
	ABS	10sec	5sec	10sec	10sec	10sec
	PMMA	10sec	5sec	10sec	15sec	15sec
	Unplasticized PVC	20sec	10sec	20sec	20sec	20sec
	Polycarbonate	20sec	10sec	20sec	20sec	25sec
	Chloroprene Rubber	5 sec	3sec	5sec	5sec	10sec
	EPDM	—	10sec	—	—	—
	Wood (Birch)	40sec	20sec	40sec	40sec	40sec
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	20	20	20	20	20
	Aluminum	12	12	12	12	12
	ABS	6*	6*	6*	6*	6*
	PMMA	6*	6*	6*	6*	6*
	Unplasticized PVC	6*	6*	6*	6*	6*
	Polycarbonate	9*	9*	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*	0.5*	0.5*
	EPDM	—	0.5*	—	—	—
	Wood (Birch)	10*	10*	10*	10*	10*
Volume	20g	○	○	○	○	○
	50g	○	○	○	○	○
	100g	○	○	○	○	○
	500g	○	○	○	○	○
	1kg	○	○	○	○	○

\*Material failure

## High Viscosity

Enables coating and bonding on vertical surfaces, such as walls, where conventional cyanoacrylate adhesives sags on the surface.

## Cyanoacrylate Adhesive with No Sag or Stringing

### ■ Non-Absorbent to the Substrate

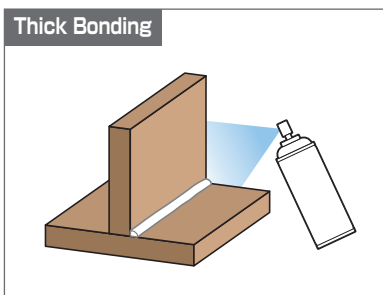
Excellent adhesion to liquid adsorbent porous materials.

### ■ Slow Curing

Slow curing allows position correction. Suitable for large area bonding.

### ■ Suitable for Adhesive Bonding with a Thick Build

The combination of a curing accelerator allows immediate adhesion with a thick build.



Category		2		
Product Number		Z106	GEL	SPEED GEL
Curing Type		Slow	Slow	Standard
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		2000	Jelly	Jelly
Hardness (Shore D)		85	85	85
Set Time	Steel	30sec	40sec	25sec
	Aluminum	30sec	40sec	25sec
	ABS	20sec	30sec	10sec
	PMMA	30sec	40sec	15sec
	Unplasticized PVC	30sec	40sec	20sec
	Polycarbonate	40sec	50sec	20sec
	Chloroprene Rubber	15sec	15sec	10sec
	EPDM	—	—	—
	Wood (Birch)	—	60sec	50sec
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	25	25	25
	Aluminum	16	16	16
	ABS	6*	6*	6*
	PMMA	6*	6*	6*
	Unplasticized PVC	6*	6*	6*
	Polycarbonate	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	—	—	—
	Wood (Birch)	—	15*	15*
Volume	3g×4		●	
	20g	○	●	●
	50g	○	●	
	100g	○		
	500g	○		
	1kg	○		

\*Material failure

●GEL and SPEED GEL are packaged in aluminum tubes



## Machinable

The cured resin is softer than that of standard cyanoacrylate adhesives, allowing for easier machining and cutting processes.

## Cyanoacrylate Adhesive Properties Plus Machinability

### ● Good Machinability



### ● Good Sandability



### ● Ideal for Filling Fine Voids



Recommend to use with  
ALTECO Spray Primer. (p.13)

Category		2		
Product Number		Z195 ■	Z195-1 ■	Machinable Gel
Curing Type		Slow	Slow	Slow
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		500	1000	Jelly
Hardness (Shore D)		50	50	65
Set Time	Steel	45sec	60sec	90sec
	Aluminum	60sec	75sec	90sec
	ABS	10sec	15sec	30sec
	PMMA	60sec	75sec	60sec
	Unplasticized PVC	300sec	300sec	300sec
	Polycarbonate	120sec	150sec	90sec
	Chloroprene Rubber	30sec	30sec	30sec
	EPDM	—	—	—
	Wood (Birch)	90sec	180sec	300sec
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	15	15	15
	Aluminum	10	10	10
	ABS	6*	6*	6*
	PMMA	6*	6*	6*
	Unplasticized PVC	2	2	2
	Polycarbonate	6	6	6
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	—	—	—
	Wood (Birch)	10	10	10
Volume	20g			●
	50g	○		
	100g		○	
	500g			
	1kg			

\* Material failure

● Machinable Gel is packaged in the aluminum tube.

■ Made to order

## For Wood Surface Repair

Various adhesives and putties have traditionally been used to fill holes and repair cracks in wood. ALTECO propose a more efficient solution using our cyanoacrylate adhesive.

### ● Repair Example



1 Fill cracks and knots in the wood with wood powder of the same material.

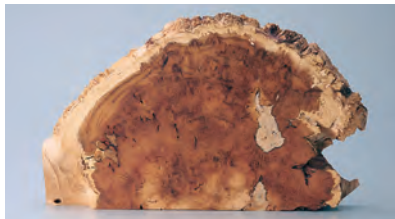


2 Drip cyanoacrylate adhesive onto the filled wood powder.



3 After curing, level the surface using a plane or similar tool. Finish by applying paint.

### ● After the Repair



### ● Curing Performance and Properties

The adhesives are formulated suitable for wood repair curing speed and hardness.

Product Number	Z114	Z198
Wood Powder Curing Time	4~5sec	7~9sec
Hardness	Hard	Semi-Hard

### ● Strength of the Method

#### ■ Fast Curing

The faster curing speed enables high work efficiency.

#### ■ Excellent Finish

Finished texture is similar to wood by using wood powder.

#### ■ Easy Machinable

Chose soft to hard cyanoacrylate adhesive depending on the wood material.

# Cyanoacrylate Adhesives

## Heat Resistance

No adhesion loss at 120°C over time, unlike standard cyanoacrylate adhesives.

Category		2
Product Number		GH300 <span style="color: green;">■</span>
Curing Type		Standard
Appearance		Pale Yellow, Transparent
Viscosity (mPa·s)		300
Hardness (Shore D)		70
Set Time	Steel	30sec
	Aluminum	30sec
	ABS	20sec
	PMMA	30sec
	Chloroprene Rubber	15sec
	NBR	15sec
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	25
	Aluminum	12
	ABS	6*
	PMMA	6*
	Chloroprene Rubber	0.5*
	NBR	0.5*
Volume	20g	○
	50g	
	100g	
	500g	
	1kg	

\* Material failure

■ Made to order

### High Heat Resistance

Offers continuous heat resistance at 120°C. Outperforms standard heat-resistant cyanoacrylate adhesives.

### Water Resistance

No adhesion loss with the bonded plastics (ABS) and rubber (CR) after water immersion for 3 months.

### Impact Resistance

Approximately 10 times greater impact resistance than standard cyanoacrylate adhesives (in-house testing).

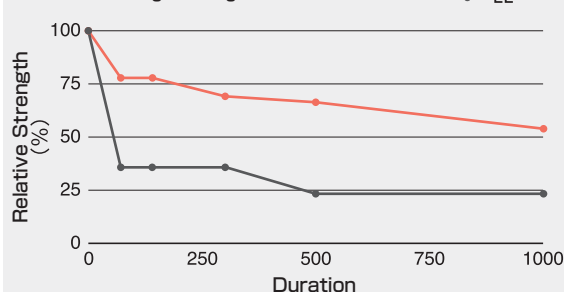
### Performance Comparison

Product Number	GH300	EE
Tensile Shear Strength (N/mm <sup>2</sup> )	25	15
Tensile Shear Strength (N/mm <sup>2</sup> ) at 120°C	18	3
T Peel (N/25mm)	65	20
Izod Impact Strength (mJ/mm <sup>2</sup> )	20	2

EE: ALTECO standard product

### Thermal aging (steel)

Tensile shear strength after aged at 120°C. Tested at 25°C.



## Flexibility

Flexible cyanoacrylate adhesive. Excellent adhesion to rubber and plastics.

Category		4		
Product Number		T10 <span style="color: green;">■</span>	T100 <span style="color: green;">■</span>	T600 <span style="color: green;">■</span>
Curing Type		Slow	Slow	Slow
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		10	100	600
Hardness (Shore D)		40	40	40
Set Time	Steel	40sec	60sec	70sec
	Aluminum	40sec	60sec	70sec
	ABS	40sec	60sec	60sec
	PMMA	180sec	210sec	240sec
	Unplasticized PVC	150sec	180sec	210sec
	Polycarbonate	150sec	180sec	210sec
	Chloroprene Rubber	5sec	10sec	10sec
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	10	10	10
	Aluminum	8	8	8
	ABS	6*	6*	6*
	PMMA	3	3	3
	Unplasticized PVC	3	3	3
	Polycarbonate	3	3	3
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Volume	20g	○	○	○
	50g	○	○	○
	100g			
	500g			
	1kg			

\* Material failure

■ Made to order

## Flexible, Moisture- and Heat Resistance

Flexible and heat resistant cyanoacrylate adhesive. Excellent adhesion to rubber and plastics.

Category		2		
Product Number		Z180-A <span style="color: green;">■</span>	Z180-1 <span style="color: green;">■</span>	Z180-2 <span style="color: green;">■</span>
Curing Type		Standard	Standard	Standard
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		4	4	300
Hardness (Shore D)		70	70	70
Set Time	Steel	10sec	20sec	20sec
	Aluminum	10sec	20sec	20sec
	ABS	10sec	20sec	20sec
	PMMA	15sec	40sec	40sec
	Unplasticized PVC	15sec	40sec	40sec
	Polycarbonate	15sec	40sec	40sec
	Chloroprene Rubber	5sec	5sec	5sec
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	20	20	25
	Aluminum	12	12	12
	ABS	6*	6*	6*
	PMMA	6*	6*	6*
	Unplasticized PVC	6*	6*	6*
	Polycarbonate	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Volume	20g	○	○	○
	50g	○	○	○
	100g			
	500g			
	1kg			

\* Material failure

■ Made to order





# Cyanoacrylate Adhesives with the Advantages of Cyanoacrylate Adhesives and Light-Curing Adhesives

## UV-Curable Modified

In addition to curing through the mechanism of a cyanoacrylate adhesive, it can also be cured by exposure to UV or visible light.

Category		2				
Product Number		HK3X	HK100X	HK500X	HKV10X	HKV20
Appearance		Pale Green, Transparent	Pale Green, Transparent	Pale Green, Transparent	Pale Green, Transparent	Pale Green, Transparent
Viscosity (mPa·s)		3	100	500	1000	2000
Hardness (Shore D)		85	85	85	85	85
Light Curing Time 100mW/cm <sup>2</sup> 365nm	Exposure Time	1 sec	1 sec	1 sec	1 sec	2 sec
Set Time without UV	Steel	10sec	30sec	30sec	45sec	50sec
	Aluminum	10sec	30sec	30sec	40sec	45sec
	ABS	8sec	15sec	15sec	17sec	20sec
	Polycarbonate	8sec	15sec	15sec	15sec	20sec
Tensile Shear Strength without UV (N/mm <sup>2</sup> )	Steel	15	15	15	15	15
	Aluminum	8	8	8	8	8
	ABS	6*	6*	6*	6*	6*
	Polycarbonate	6	6	6	6	6
	Silicone Rubber**	0.5*	0.5*	0.5*	0.5*	0.5*
Volume	50g	○	○	○	○	○
	500g	○	○	○	○	○
	1kg	○	○	○	○	○

\* Material failure

\*\* Used with Primer

■ Made to order

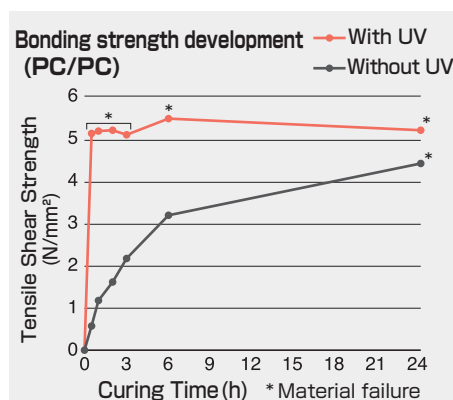
### Moisture Curing + Light Curing

Standard use as cyanoacrylate adhesives. Shadow area cures with moisture curing chemistry. Light exposure accelerates curing. Cures approximately 10mm gap.



### Time Saving

Adhesion strength reaches immediately after light exposure, can reduce curing time.



### Prevent Blooming

Rapid curing by UV prevents blooming phenomenon as instant adhesive-specific and doesn't impairing the beauty of appearance.

● On NBR





# Cyanoacrylate Adhesives

## Low Odor, Low Bloom

Less cyanoacrylate characteristics irritating odor.  
Less bloom after application.

Category		3		
Product Number		Z28S	Z27 <span style="color: green;">■</span>	Z26
Curing Type		Fast	Standard	Standard
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		3	70	150
Hardness (Shore D)		70	70	70
Set Time	Steel	5sec	10sec	15sec
	Aluminum	5sec	15sec	15sec
	ABS	5sec	10sec	15sec
	PMMA	15sec	20sec	20sec
	Unplasticized PVC	5sec	10sec	25sec
	Polycarbonate	10sec	20sec	25sec
	Chloroprene Rubber	3sec	5sec	5sec
	EPDM	3sec	10sec	15sec
	Wood (Birch)	—	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	15	20	20
	Aluminum	8	12	12
	ABS	6*	6*	6*
	PMMA	4	4	4
	Unplasticized PVC	3	3	3
	Polycarbonate	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	0.5*	0.5*	0.5*
	Wood (Birch)	—	—	—
Volume	20g	○	○	○
	50g	○	○	○
	100g	○	○	○
	500g	○	○	○
	1kg			○

\*Material failure

■ Made to order

## No Odor, No Bloom

Low cyanoacrylate characteristics irritating odor.  
Low bloom after application.

Category		4		
Product Number		Z84	Z84X	Z84V
Curing Type		Standard	Standard	Standard
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		5	60	1000
Hardness (Shore D)		60	60	60
Set Time	Steel	15sec	20sec	30sec
	Aluminum	15sec	20sec	30sec
	ABS	15sec	30sec	40sec
	PMMA	90sec	100sec	110sec
	Unplasticized PVC	15sec	40sec	50sec
	Polycarbonate	30sec	60sec	70sec
	Chloroprene Rubber	3sec	5sec	10sec
	NBR	3sec	5sec	10sec
	Wood (Birch)	—	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	15	20	20
	Aluminum	8	12	12
	ABS	6*	6*	6*
	PMMA	4	4	4
	Unplasticized PVC	3	3	3
	Polycarbonate	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*
	NBR	0.5*	0.5*	0.5*
	Wood (Birch)	—	—	—
Volume	20g	○	○	○
	50g	○	○	○
	100g	○	○	○
	500g	○	○	○
	1kg	○	○	○

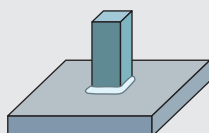
\*Material failure

## Blooming

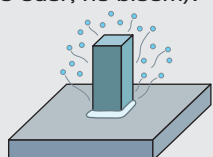
A phenomenon where some of the cyanoacrylate adhesive volatilizes into the air before curing and solidifies as a fine powder around the bonding area.

### How to prevent

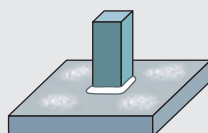
- Remove dust, moisture, oil on the bonding surfaces and around the bonding area.
- Reduce the relative humidity in the working environment.
- Prevent adhesive overflow.  
Apply only the minimum required amount.
- Do not immediately enclose the bonded items in a confined space, such as by overlapping or packaging them.
- Wear PE gloves.
- Prevent the buildup of adhesive fumes by directing air or warm air over the area.
- Use together with a spray primer or an accelerator such as PR150.
- Use Z26, Z27, or Z28S (low odor, low bloom), or the Z84 series (no odor, no bloom).



Excess adhesive and uncured areas may result from improper application or gaps in the bonding surfaces.



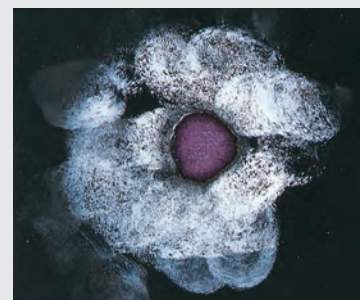
Adhesive begins to volatilize.



The adhesive reacts with atmospheric moisture and forms a powder that deposits after curing.

### If Blooming Occurs

- Wipe thoroughly with dry cloth.
- Wipe off using acetone, alcohol, or a similar solvent.  
Confirm if the solvent affects the substrate before wiping.



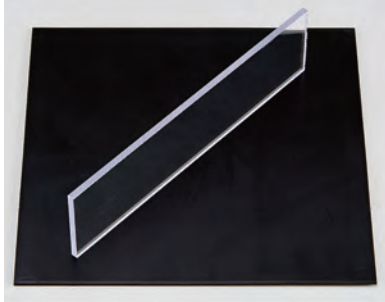


## No Odor, No Bloom, and High Strength

Low cyanoacrylate characteristics irritating odor. Low bloom after application. High adhesion, peel strength, impact resistant.

## Improved Work Environment and Clean Finish

### ●Z84 series

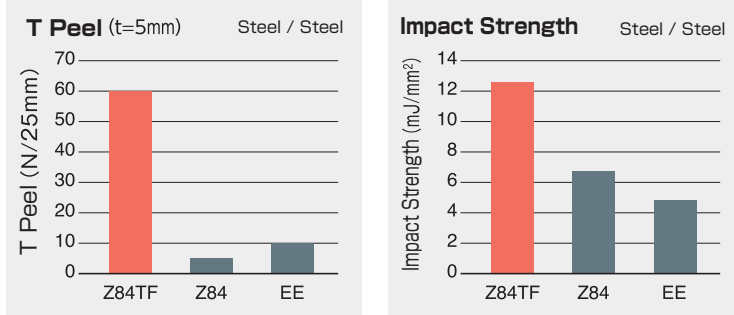


### ●Standard Cyanoacrylate Adhesives



## ■ High Adhesion Strength

The product excels in peel strength and impact resistance compared to other non-blooming and standard cyanoacrylate adhesives.



Category		4
Product Number		Z84TF
Curing Type		Standard
Appearance		Transparent
Viscosity (mPa·s)		3000
Hardness (Shore D)		60
Set Time	Steel	70sec
	Aluminum	70sec
	ABS	40sec
	PMMA	340sec
	Unplasticized PVC	300sec
	Polycarbonate	340sec
	Chloroprene Rubber	30sec
	NBR	30sec
Tensile Shear Strength (N/mm²)	Steel	20
	Aluminum	12
	ABS	6*
	PMMA	4
	Unplasticized PVC	3
	Polycarbonate	9*
	Chloroprene Rubber	0.5*
	NBR	0.5*
Volume	20g	○
	50g	○
	100g	
	500g	
	1kg	○

\*Material failure

■ Made to order

## General Properties

## Properties Before and After Curing

### Monomer (Before curing, liquid)

Category	1	2	3	4
Appearance	Colorless, Transparent Liquid			
Specific Gravity ( $d_{4}^{20}$ )	1.100	1.056	0.976	1.070
Freezing Point (°C)	1.5	-29.5	-2.0	-20≤
Flash Point (Open Cup) (°C)	101	83 (Closed Cup)	99	117
Autoignition Temperature(°C)	465	485	410	330

- Category 1** Excellent adhesion to metal and excellent chemical resistance
- Category 2** Various products with different features
- Category 3** Low Odor, Low Bloom
- Category 4** No Odor, No Bloom

### Polymer (After curing, solid)

Category	1	2	3	4
Appearance	Colorless, Transparent Solid			
Specific Gravity	1.260	1.244	1.126	1.171
Softening Point (°C, Vicat)	165	145	110	60
Glass Transition Temperature (°C)	170	140	125	80
Coefficient of Thermal Expansion $\times 10^{-4}$	0.9	1.1	1.3	1.0
Dielectric Constant (10MC, 10°C)	3.5	3.5	3.5	3.5
Dissipation Factor (10MC, 10°C)	0.07	0.07	0.07	0.07
Dielectric Breakdown Voltage (kV/0.1mm, 23°C)	14	14	14	14
Volume Resistivity ( $\Omega$ cm, 30°C)	$10^{14}$	$10^{14}$	$10^{14}$	$10^{14}$
Solubility	DMF DMSO	Acetone DMF, DMSO		

# Cyanoacrylate Adhesives

## High Strength, Impact Resistance

Excellent adhesion to metal and impact resistance.



Category		2		
Product Number		CN2	CN4	CN6
Curing Type		Standard	Standard	Standard
Appearance		Transparent	Transparent	Transparent
Viscosity (mPa·s)		3	75	1000
Hardness (Shore D)		85	85	85
Set Time	Steel	15sec	25sec	30sec
	Aluminum	15sec	25sec	30sec
	ABS	10sec	10sec	15sec
	PMMA	15sec	15sec	20sec
	Unplasticized PVC	10sec	20sec	25sec
	Polycarbonate	10sec	20sec	30sec
	Chloroprene Rubber	5sec	10sec	10sec
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	25	25	25
	Aluminum	13	13	13
	ABS	6*	6*	6*
	PMMA	6*	6*	6*
	Unplasticized PVC	6*	6*	6*
	Polycarbonate	9*	9*	9*
	Chloroprene Rubber	0.5*	0.5*	0.5*
	EPDM	—	—	—
	Wood (Birch)	—	—	—
Volume	2gX6	○	○	
	20g			
	50g	○	○	○
	100g	○	○	○
	500g	○	○	
	1kg	○	○	○

\* Material failure

## Peel Resistance

Excellent peel resistance.

Category		2	
Product Number		Z200M ■	Z200H ■
Curing Type		Slow	Slow
Appearance		Transparent	Transparent
Viscosity (mPa·s)		300	3000
Hardness (Shore D)		70	70
Set Time	Steel	30sec	60sec
	Aluminum	30sec	60sec
	ABS	20sec	40sec
	PMMA	30sec	60sec
	Unplasticized PVC	30sec	60sec
	Polycarbonate	30sec	40sec
	Chloroprene Rubber	15sec	20sec
	EPDM	—	—
	Wood (Birch)	—	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	25	25
	Aluminum	13	13
	ABS	6*	6*
	PMMA	6*	6*
	Unplasticized PVC	6*	6*
	Polycarbonate	9*	9*
	Chloroprene Rubber	0.5*	0.5*
	EPDM	—	—
	Wood (Birch)	—	—
Volume	20g	○	○
	50g	○	○
	100g	○	
	500g	○	○
	1kg	○	

\* Material failure

■ Made to order

## Low Strength

Low-strength cyanoacrylate adhesive for thread locking and temporary bonding of components.

Category		2
Product Number		Z135 ■
Curing Type		Slow
Appearance		Blue, Transparent
Viscosity (mPa·s)		20
Hardness (Shore D)		20
Set Time	Steel	20sec
	Aluminum	20sec
	ABS	20sec
	PMMA	100sec
	Unplasticized PVC	50sec
	Polycarbonate	30sec
	Chloroprene Rubber	5sec
	EPDM	—
	Wood (Birch)	—
Tensile Shear Strength (N/mm <sup>2</sup> )	Steel	5
	Aluminum	3
	ABS	6*
	PMMA	6*
	Unplasticized PVC	3
	Polycarbonate	9*
	Chloroprene Rubber	0.5*
	EPDM	—
	Wood (Birch)	—
Volume	20g	○
	50g	○
	100g	
	500g	
	1kg	

\* Material failure

■ Made to order





## For Artificial Marble Bonding

Faster curing than polyester based adhesive.  
Processing time saving.

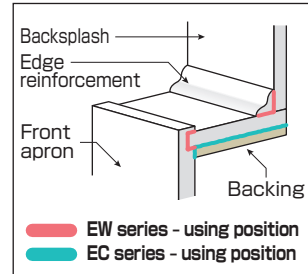
### EC series - Clear Type

Clear adhesive suitable for backside bonding.

### EW series - High Opacity Type

White color conceals the bond line. Smooth texture finish.

- Color customization is available upon request. Contact us for further details.
- For curing excess adhesive beyond the bonded area, recommend to use with ALTECO curing accelerator (Spray Primer or PR150)



Category		2						
Product Number		EC200	EC600X	EC1000 ■	EC1500X	EW300N ■	EW1000N	EWN
Curing Type		Fast	Fast	Standard	Fast	Standard	Standard	Slow
Appearance		Transparent	Transparent	Transparent	Transparent	White	White	White
Viscosity (mPa·s)		200	600	1000	1500	300	1000	8000
Suitable Material	Metal	○	○	○	○	○	○	○
	Plastics	○	○	○	○	○	○	○
	Artificial marble	◎	◎	◎	◎	◎	◎	◎
	Wood, Porous Material	◎	◎	◎	◎			
Acrylic Artificial Marble	Set Time	5sec	5sec	15sec	10sec	15sec	15sec	60sec
	Compressive Shear Strength (N/mm²)	25*	25*	25*	25*	25*	25*	25*
	Compressive Shear Strength after 24h Boiling (N/mm²)	8	8	10	10	20	20	20
Volume	50g	○	○	○	○	○	○	○
	100g	○	○	○	○	○	○	○
	300g							○

\*Material failure

■ Made to order

## For Polystyrene Foam Bonding

Now capable of bonding polystyrene foam, which could not be bonded with conventional cyanoacrylate adhesives.

### ■ Do not Dissolve Polystyrene Foam

As conventional cyanoacrylate adhesives dissolve polystyrene foam, polystyrene foam is difficult to bond material. This product overcomes that limitation, enabling effective bonding.

### ■ Slow Curing

With an extended open time, the product facilitates the bonding of large objects and allows for accurate position adjustments.

### ■ Compatible with a Wide Range of Materials Beyond Polystyrene Foam

Allows reliable bonding between polystyrene foam and various materials—including wood, plastic, and metal.



Category		2	
Product Number		FS800	FS800B ■
Curing Type		Slow	Slow
Appearance		Transparent	Pale Blue, Transparent
Viscosity (mPa·s)		800	800
Hardness (Shore D)		40	40
Set Time	Polystyrene Foam	360sec	360sec
	Steel	10sec	10sec
	Aluminum	10sec	10sec
	ABS	10sec	10sec
	PMMA	240sec	240sec
	Unplasticized PVC	900sec	900sec
	Polycarbonate	60sec	60sec
	Chloroprene Rubber	10sec	10sec
Tensile Shear Strength (N/mm²)	NBR	30sec	30sec
	Polystyrene Foam	0.1*	0.1*
	Steel	4	4
	Aluminum	4	4
	ABS	4	4
	PMMA	6*	6*
	Unplasticized PVC	6	6
	Polycarbonate	4	4
Volume	Chloroprene Rubber	0.5*	0.5*
	NBR	0.5	0.5
	20g	○	
	50g	○	○
	100g		
	500g		
	1kg		

\*Material failure

■ Made to order

# Cyanoacrylate Adhesives

## Curing Accelerator

Further accelerates the curing speed of cyanoacrylate adhesive.

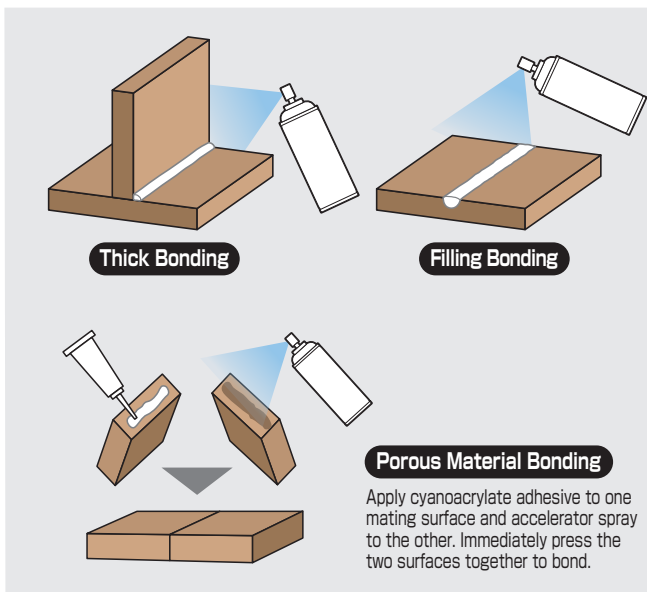
## Quick Curing Time Enhances Work Efficiency and Versatility

### ■ Improved Work Efficiency

Minimize processing time by accelerating cyanoacrylate adhesive curing speed.

### ■ Simplifies Processes such as Bonding with a Thick Build and Gap-Filling

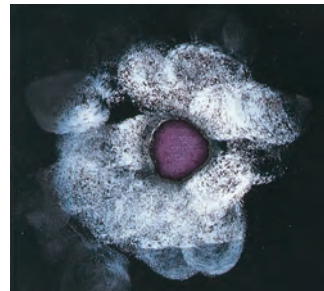
Facilitates reliable adhesion in difficult environments, including thick build bonding, gap filling, and bonding to porous substrates, thereby extending the scope of bonding applications.



### ■ Prevent Blooming

Effectively prevents blooming typically caused by cyanoacrylate adhesives around the bonding area.

#### ● Without Curing Accelerator



#### ● With Curing Accelerator



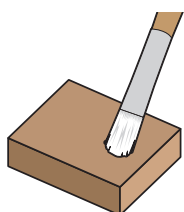
Product Number	PR150	PR310	Spray Primer	Low Odor Spray Primer
Properties	Liquid	Liquid	Aerosol	Aerosol
Main Component	Cyclopentane	Alcohol	Cyclopentane	Cyclopentane
Volume	250ml	250ml	100ml , 420ml	420ml

We also offer a variety of other curing accelerators. Please feel free to contact us for more information.

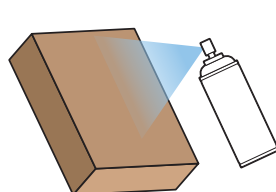
## Instruction for Use

- ① Apply or drop the accelerator to the mating surface opposite the one where the cyanoacrylate adhesive will be applied. Allow it to dry, then bond the two surfaces together. (For spray primers, apply from a distance of 10 to 20 cm.)
- ② For filling or high build bonding applications, apply the cyanoacrylate adhesive first, then drip or spray the accelerator over the bonding area. Do not apply excessive accelerator. A small amount is sufficient to achieve the desired effect. Excessive accelerator may cause color change and bonding failure.

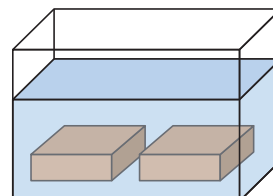
### ● Application Example



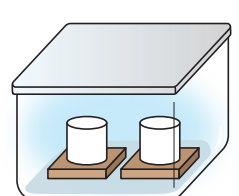
Brush with cloth or brush.



Spray.  
(Spray Primer)



Immerse the substrates  
in the accelerator.



After bonding, place it in  
an atmosphere containing  
the curing accelerator.



## Primers for Difficult-to-Bond Materials

Primer for cyanoacrylate adhesive developed for low energy surface bonding. The product can rapidly bond PE, PP, silicone rubber, and various engineering plastics and provide strong adhesion.



## Enables Bonding of Materials that are Difficult to Bond with Cyanoacrylate Adhesives

Product Number		PR500	PR550	PR700	PR960
Applicable Materials		PE, PP, POM, EPDM Soft PVC, TPO	PP, PE, POM, EPDM Soft PVC, TPO, Nylon	Silicone Rubber Soft PVC	Fluororesin
Appearance		Colorless, Transparent Liquid	Colorless, Transparent Liquid	Colorless, Transparent Liquid	Colorless, Transparent Liquid
Specific Gravity		0.72	0.79	0.77	0.77
Main Component		Octane	Acetone	Alcohol, Methylcyclohexane	Methylcyclohexane
Volume		250ml	250ml	250ml	250ml
Open Time		20min	12h	2h	5min
Tensile Shear Strength (N/mm <sup>2</sup> )	Polyethylene	4*	4*	—	—
	Polypropylene	4*	4*	—	—
	EPDM	0.5*	0.5*	—	—
	Soft PVC	2*	2*	2*	—
	Silicone Rubber	—	—	0.5*	—
	Silicone Rubber / Chloroprene Rubber	—	—	0.5*	—
	Silicone Rubber / Polyurethane	—	—	0.5*	—
	Silicone Rubber / Steel	—	—	0.5*	—
PTTF (Fluororesin)		—	—	—	2.5*

\* Material failure

Open time: Allowable time before the bonding procedure after coating the primer. (The amount of time the primer is effective.)

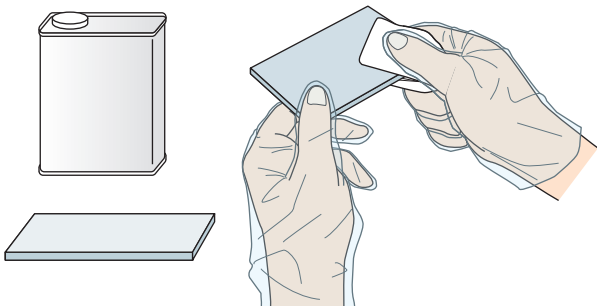
Open time depends on substrate and working environment. Recommend to bond substrates immediately after the primer is dry.

We also offer a variety of other primers for difficult-to-bond materials.

Please feel free to contact us for more information.

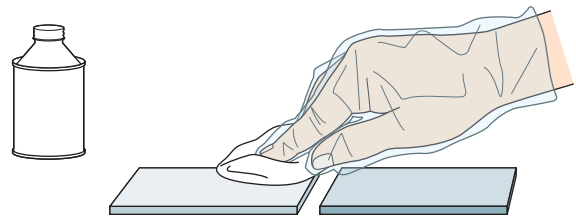
### Instruction for Use

- ① Remove any dirt, oil, or other contaminants from the bonding surface.

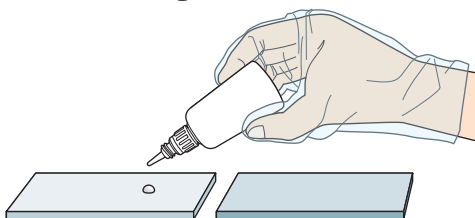


- ② Impregnate gauze or similar material with the primer, and rub it onto the bonding surface 2 to 3 times, or apply with a brush.

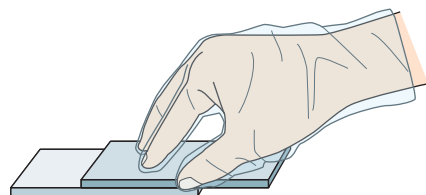
Note: Excess application of PR500 may reduce bonding strength. Avoid brush application and instead apply by lightly rubbing 2 to 3 times with gauze or similar material.



- ③ After drying the primer, apply the appropriate amount of cyanoacrylate adhesive to the other mating surface in dots or lines. Immediately bond and fix.  
Note: After applying, the primer is effective for several minutes to several hours (open time). However, once the surface has dried, immediately press the two surfaces together to bond.



- ④ Allow the bonded parts to leave undisturbed for approximately 30 minutes until practical strength is achieved.  
For silicone rubber, a few minutes may be sufficient.





# Cyanoacrylate Adhesives

## Container Types & Sizes

ALTECO offers container sizes tailored to your application and usage volume. For product details or container sizes not listed on this page, please contact us.

## Available in a Variety of Sizes



2g



20g



50g



100g



500g



1kg



Aluminum Tube

## Supporting Information

### Fine-Tip Nozzle for Cyanoacrylate Adhesive

A precision nozzle designed for use with ALTECO cyanoacrylate adhesive bottles. Enables controlled, small-quantity application of adhesive-ideal for detailed or pinpoint bonding work.



### Compliant with the Food Sanitation Law of Japan

Complies with the Japanese specifications and standards for food, food additives, etc. (Ministry of Health and Welfare Notification No. 370, 1959). Please contact us for details on applicable product numbers.



### Tendency of Set Time Variation

Set time (bonding time) may vary depending on the materials being bonded and the surrounding environmental conditions.

Set Time	Slow	Fast
Surface Conditions	Acidic	Alkaline
Temperature	Low	High
Humidity	Low	High

### Plastic Dissolution and Stress Cracking

Cyanoacrylate adhesives may cause surface dissolution or stress cracking on certain plastics such as polystyrene, polycarbonate, acrylic, and ABS.

#### Prevention Methods

- Avoid excess adhesive overflow and apply the minimum required amount.
- Use fast and ultra-fast cyanoacrylate adhesive (EZ series).
- Release residual Internal Stress in Plastic Moldings.
- Use the FS800 series for polystyrene foam.



## Selector Guide

Capable of bonding most materials commonly used in industrial applications.

Note: This table serves as a guideline for selecting adhesives. Please choose the material to be bonded, and select the most suitable product number based on required conditions such as viscosity, curing speed, and bond strength.

	Wood	Ceramics	Stone	EPDM	Chloroprene	Natural Rubber	TPO (Thermoplastic Olefinic Elastomer)	Silicone	PP / PE / PBT	Nylon	Polyurethane	POM	Polyester	PET	Polycarbonate	Phenol Resin	PVC	PMMA	ABS	Plated Surface	Steel / Aluminum / SUS
Steel / Aluminum / SUS	W	CN W	EE W	D EZ	EE CN	D	88 EZ	EE CN	D EZ	D EZ	88 EZ	88 EZ	D EZ	D CN	EE CN	EE CN	EE CN	EE CN	EE CN	CN M	CN M
Plated Surface	W	CN W	EE W	D EZ	EE CN	D	88 EZ	EE CN	D EZ	D EZ	88 EZ	88 EZ	D EZ	D CN	EE CN	EE CN	EE CN	EE CN	EE CN	CN M	
ABS	W	CN W	EE W	D EZ	EE	D	88 EZ	EE	D EZ	D EZ	88 EZ	88 EZ	D EZ	D EZ	EE	EE	EE	EE	EE		
PMMA	W	CN W	EE W	D EZ	EE	D	88 EZ	EE	D EZ	D EZ	88 EZ	88 EZ	D EZ	D EZ	EE	EE	EE	EE			
PVC	W	CN W	EE W	D EZ	EE	D	88 EZ	EE	D EZ	D EZ	88 EZ	88 EZ	D EZ	D EZ	EE	EE	EE				
Phenol Resin	W	CN W	EE W	D EZ	EE	D	88 EZ	EE	D EZ	D EZ	88 EZ	88 EZ	D EZ	D EZ	EE	EE					
Polycarbonate	W	CN W	EE W	D EZ	EE	D	88 EZ	EE	D EZ	D EZ	88 EZ	88 EZ	D EZ	D EZ	EE						
PET	EZ	EZ	EZ	D EZ	D EZ	D EZ	88 EZ	D EZ	D EZ	D EZ	88 EZ	88 EZ	D EZ	D EZ							
Polyester	EZ	EZ	EZ	D EZ	D EZ	D EZ	88 EZ	D EZ	D EZ	D EZ	88 EZ	88 EZ	D EZ								
POM	EZ	EZ	EZ	88 EZ	88 EZ	88 EZ	88 EZ	88 EZ	D EZ	88 EZ	88 EZ	88 EZ									
Polyurethane	EZ	CN W	EZ	D EZ	D EZ	D EZ	88 EZ	D EZ	D EZ	D EZ	88 EZ										
Nylon	EZ	CN W	EZ	D EZ	D EZ	D EZ	88 EZ	D EZ	D EZ	D EZ											
PP / PE / PBT	EZ	EZ	EZ	D EZ	D EZ	D EZ	88 EZ	D EZ	D EZ												
Silicone	EZ	EZ	EZ	D EZ	D EZ	D EZ	88 EZ	88 EZ													
TPO (Thermoplastic Olefinic Elastomer)	EZ	EZ	EZ	88 EZ	88 EZ	88 EZ	88 EZ														
Natural Rubber	W	CN W	EE W	D EZ	D T	D T															
Chloroprene	W	CN W	EE W	D EZ	EE T																
EPDM	EZ	EZ	EZ	D EZ																	
Stone	W	CN W	EE W																		
Ceramics	W	CN W																			
Wood	W																				

Prime with PR500 or PR550 improves adhesion.

Prime with PR700.

Prime with PR500, 550.

### When You Want to Speed Up the Curing Time >>>>

Use EZ series (fast or ultra-fast curing types). Alternatively, use together with spray primers such as PR150 (curing accelerators).

### When You Want to Slow Down the Curing Time >>>>

Use Z106, GEL (slow-curing types).

### When You Want to Prevent Blooming >>>>

Use Z26, Z27, or Z28S (low-bloom type), or the Z84 series (non-blooming type). Alternatively, use together with an accelerator such as spray primer or PR150.

### When Odor Is a Concern >>>>

Use Z26, Z27, Z28S (low-odor type) or the Z84 series (odorless type).

### For Gap-Filled Bonding or Penetration Control >>>>

Use W series products (medium to high viscosity types).

### For Overhead or Vertical Bonding, Filling, and Build-Up bonding >>>>

Use GEL or SPEED GEL (gel-type).

### For Difficult-to-Bond Substrates >>>>

Use D, 88, etc. (adhesives for hard-to-bond materials), or use in combination with PR500, PR550, PR700, etc. (primers for hard-to-bond materials).

### When Bonding Fluororesin >>>>

Use with PR960.

## Customized Adhesive Solutions

ALTECO offers a wide range of grades beyond standard products, tailored to various materials and application conditions.

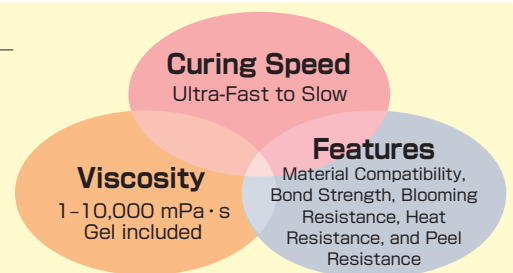
If no existing type meets your required performance, please consider using ALTECO's Customized Adhesive System.

ALTECO can formulate original adhesives based on specific needs such as bonded materials, viscosity, curing speed, strength, and application volume.

Color customization is also available to allow visual confirmation of adhesive application.

Detailed consultation is required when placing an order.

For more information, please contact us.



# Handling Precautions for Various Adhesives

## Cyanoacrylate Adhesives

### Precautions for Use



#### In Case of Contact with Skin

Do not forcefully peel it off. Soak the area in warm water (around 40°C) and gently rub until it loosens, or use a dedicated debonding agent or a solvent such as acetone.



#### In Case of Contact with Eyes

Rinse thoroughly with clean water repeatedly and seek medical attention. Do not rub your eyes or use any debonding agent or solvent such as acetone.



#### In Case of Inhalation

Move to a place with fresh air and rinse your mouth. If symptoms persist, consult a physician.



#### In Case of Ingestion

Small amounts solidify quickly. Rinse your mouth with plenty of water and gently remove any hardened adhesive by hand. In the case of large amounts, burns may occur - cool the area with water and seek immediate medical attention.



#### In Case of Spillage

Large amounts spilled on cloth may generate heat and cause burns - handle with care. It may not be removable once absorbed. If spilled on surfaces such as desks, wear polyethylene gloves and wipe off gradually before it cures. Once cured, test a small, inconspicuous area for surface damage before using acetone or similar solvent to remove it gradually.



#### Work Environment

Ensure adequate ventilation, as the product emits a strong odor. Prolonged or repeated exposure may irritate the eyes, throat, and nose. Take regular breaks in fresh air to protect your health. Also, use the product in a fire-free environment.

### Precautions After Use



Wipe off the nozzle tip after use and securely cap the container. Store in a cool, dry, and dark place away from fire sources.



Avoid exposure to direct sunlight, as the adhesive may also cure under ultraviolet light.



Keep out of reach of infants and young children, and take precautions to avoid misuse.



Do not store the product in alkaline environments or near curing accelerators or amine-based substances.

### Disposal Instructions

- Expose small amounts of the adhesive to direct sunlight to cure, then dispose of it as plastic waste.
- Dispose of the product in accordance with local disposal regulations.

## Epoxy Adhesives

## Anaerobic Adhesives / Light-Cure Adhesives

### Precautions for Use



#### In Case of Contact with Skin

Wipe off immediately and wash thoroughly with soap and water or warm water. If itching or inflammation occurs, seek medical attention promptly.



#### In Case of Ingestion

Do not induce vomiting. Seek medical attention promptly.



#### In Case of Fire

Cut off any sources of combustion and extinguish the fire from upwind using an appropriate fire extinguisher, such as a dry chemical (ABC type) or carbon dioxide (CO<sub>2</sub>) extinguisher.



#### In Case of Contact with Eyes

Rinse thoroughly with plenty of water immediately and consult a physician as soon as possible.



#### In Case of Spillage

Wipe up with paper or cloth. If a large amount is spilled, collect it in a sealed container.



#### Proper Workwear

Wear impermeable gloves and long-sleeved work clothing to prevent direct contact with the body. Avoid handling the product directly with bare hands.



#### In Case of Inhalation

If abnormal symptoms such as itching occur due to inhalation of fumes or vapor, seek medical attention immediately.



#### Work Environment

Install local exhaust ventilation in work areas where mixing, dispensing, application, or bonding is carried out.

### Precautions After Use



Wipe the container and nozzle tips clean, replace the cap, and store under the specified conditions.



Wash hands and gargle thoroughly after use.



Keep out of reach of infants and young children, and take precautions to avoid misuse.

### Disposal Instructions

- Dispose of the product in accordance with applicable local laws and regulations, or entrust disposal to a licensed waste disposal contractor. Dispose of used containers and cloths in the same manner.

## Glossary of Adhesives Terms

### Set Time

Time required for the bonded parts to cure sufficiently to be handled or moved to the next process without damage. JIS defines it as the time it takes to withstand a 50N force.

### Tensile Shear Strength

Maximum load at which the bonded test specimen fails when a tensile shear force is applied, divided by the bonded area.

### Compressive Shear Strength

Maximum load at failure under compressive shear force, divided by the bonded area.

### Pot Time

Time during which the mixed adhesive remains usable for application. Typically defined as the time to double the initial viscosity or reach 60% of the exothermic peak.

### Curing Time

Time at which the adhesive begins to exhibit stable mechanical properties such as tensile, compressive strength, or hardness.

### Thixotropic

Property of a material that is gel-like at rest but becomes fluid when agitated or stirred, and returns to gel-like state upon resting.

### Break Torque

The torque required to start turning a fastener after the adhesive has fully cured.

### Prevail Torque

The torque needed to continue turning a fastener after the initial breakaway, due to residual cured adhesive in the thread gaps.

### Maximum Applicable Gap

The maximum bond gap between substrates that still allows for sufficient bonding strength.

### Pot Life

Time after mixing during which the adhesive remains in a usable, applicable state.

### UV Intensity

Measured radiant energy of ultraviolet light used for curing.

### Tg (Glass Transition Temperature)

The temperature at which a cured material transitions from a hard, glassy state to a soft, rubbery state.

### Coefficient of Thermal Expansion

The rate at which a material's length changes with temperature.



The data provided in this catalog are for reference only and may differ under actual conditions.  
They do not guarantee product performance.  
Before use, please conduct sufficient testing to ensure suitability for your specific application.  
Please note that product design and appearance are subject to change without prior notice.  
Refer to the Safety Data Sheet (SDS) issued by our company and ensure safe usage under your own responsibility.  
All chemical products may have unknown hazards; therefore, handle them with due care.

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