

Description

CT 7286 is a one-part cyanoacrylate instant adhesive designed for bonding various substrates. It has excellent bonding strength and heat resistance.

Features

- Recommended substrates: rubbers, metals and plastics
- Low odor
- Minimizing blooming
- Good impact, heat and humidity resistance

Uncured Properties

Chemical Type	Ethyl Cyanoacrylate
Appearance	Transparent
Viscosity @ 25°C [mPa.s]	2,500
Specific Gravity [g/cm³]	~1.05
Shelf Life @ 2-8°C [months]	6

Curing Conditions

Fixture Time @ 25°C, 50%RH [secs]	
Rubber	10-20
ABS	20-30
Polycarbonate	20-30
Steel	30-45
Stainless Steel	45-60
Aluminum	45-60
Copper	30-45
Full Strength @ 25°C [hrs]	24

Cured Properties

Tensile Strength [MPa]	
ASTM D638	
Rigid PVC	6*
ABS	6*
Polycarbonate	8*
Steel	25
Aluminum	20
Stainless Steel	23
Copper	20

*Material failure

Cure speed vs. bond line thickness

The cure speed depends on the bond line thickness. Thin bond lines result in high cure speed. Increasing bond line thickness will decrease the cure speed.

Cure speed vs. humidity

The cure speed depends on the ambient relative humidity. The best adhesion results are achieved when the relative humidity in the working environment is 40% to 75% at 25°C. Lower humidity leads to slower cure speed. Higher humidity accelerates it, but may impair the final bonding strength.

Cure speed vs. activators

Applying activators to the adhesion surface will increase cure speed. However, it may affect the final bonding strength. Therefore, thorough tests are recommended to confirm the impacts.

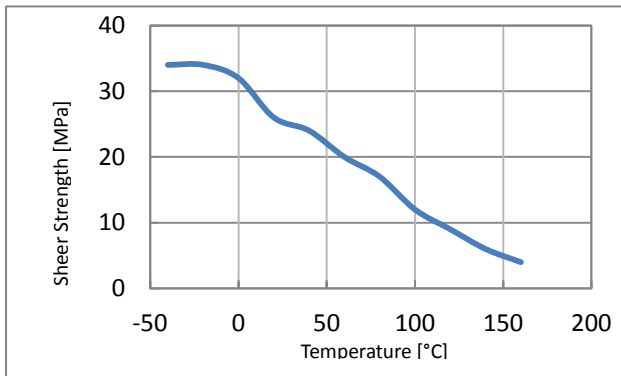
Cure speed vs. substrates

The cure speed depends on the substrates. The table **Curing Conditions/Fixture Time** shows the fixture time achieved on various substrates. Fixture time is defined as the time to develop lap shear strength of 0.1MPa.

Temperature vs. bonding strength

After curing for 24 hrs at 25°C/60%RH, then leaving for 30 mins at the specified temperature.

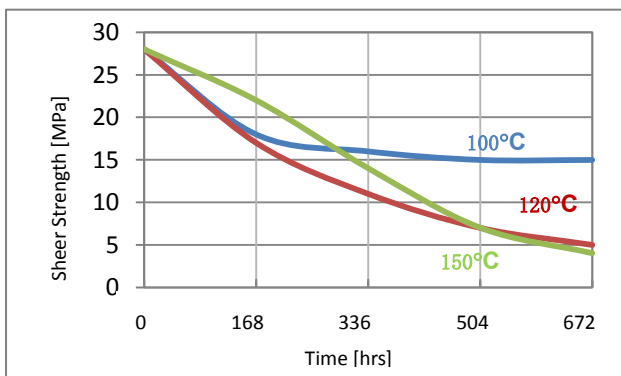
Test substrate: steel / steel



Heat resistance

The bonding strength is measured at 120 mins after aging bonded substrates for a specified time period at special temperature.

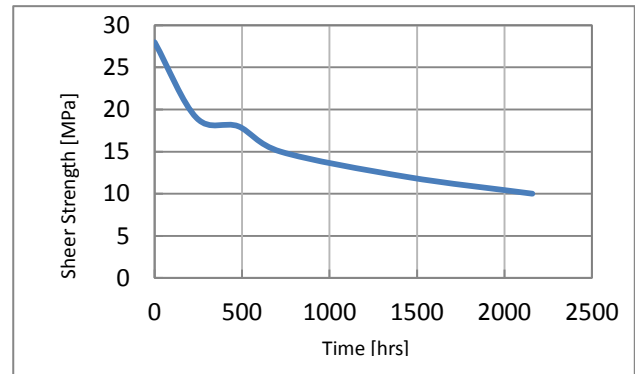
Test substrate: steel / steel



Water resistance

The bonding strength is measured after immersing the bonded substrates into water for a specified time period at 40°C.

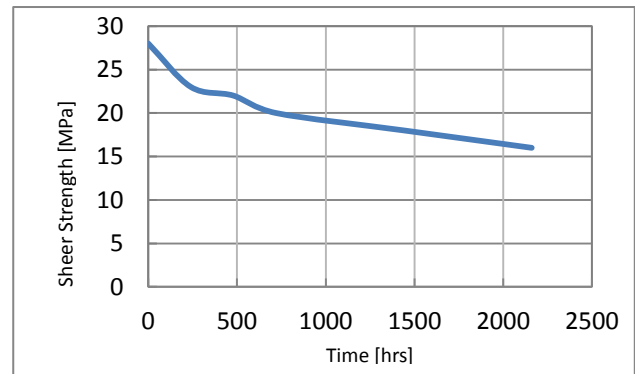
Test substrate: SUS / SUS



Humidity resistance

The bonding strength is measured after leaving the bonded substrates in the environment with high moisture (40°C/98%RH) for a specified time period.

Test substrate: SUS / SUS



Chemical/solvent resistance

Lab shear strength of bonded steel substrates immersed in various solvents for 1,000 hrs and tested @ 25 °C.

Solvent	% of Initial Strength
Trichlorethylene	105%
Gasoline	105%
Motor oil	100%
40°C/98%RH	75%
Isopropanol	105%
Ethanol	105%

Directions for Use

1. Surface Treatment

Surfaces to be bonded should be free of dust, oil, grease or any other contaminants in order to achieve a reproducible bond. For slightly contaminated surfaces, it is sufficient to wipe with isopropanol or ethanol. Substrates with a low surface energy (e.g. polyethylene, polypropylene) need to be pre-treated physically (e.g. atmospheric plasma or corona) in order to achieve sufficient adhesion.

Use primer CT 9202 for bonding to hard-to-bond materials such as rubber, PP, PE, etc.

2. Application

Products are supplied ready for use. Depending on package type, they can be dosed manually, semi-automatically or fully-automatically with a dosage apparatus. With automatic dispensing using a cartridge, the adhesive is conveyed via pressure and a piston rod

to a dispense valve. With bottles, the adhesive is conveyed using a pump.

After application, it is recommended that the two substrates be adjoined immediately as it is possible the curing process will begin with select products under ambient conditions.

This product is soluble in acetone, dimethyl formamide, nitromethane and dimethyl sulfoxide.

Storage

Maximum shelf life may be obtained when product is stored in a cool, dry location at a temperature between **2°C to 8°C**. TO PREVENT CONTAMINATION OF UNUSED PRODUCT, DO NOT RETURN ANY PRODUCT TO ITS ORIGINAL CONTAINER.

Materials Handling

Refer to the Material Safety Data Sheet (MSDS) for this product.

Disclaimer

The information provided here including the recommendations for use and application of the product is based on internal laboratory test conditions and should only be used as a reference. CollTech does not assume responsibility for the test or performance results obtained by the user. It is the responsibility of the user to perform their own evaluations to confirm whether this product is suitable for their application.