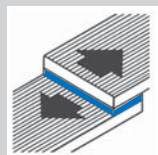


## Application examples



### ▪ Bonding of plastics

#### Plastics easy to bond

For example ABS, PC, PS, PMMA, PA < 6.6, PVC  
→ DELO-CA 2229, 2256, 2725

#### Plastics with limited bondability

For example PA > 6.6, PE, POM, PP; silicones  
→ DELO-CA 2256  
only after pretreatment with DELO-PRE 2005

#### Plastics which cannot be bonded

PTFE and practically all fluorinated plastics

### ▪ Bonding of metals

→ DELO-CA 2106, 2153

### ▪ Bonding of elastomers

For example rubber like EPDM, viton, foam rubber  
→ DELO-CA 2219, 2505

### ▪ Bonding of porous surfaces

For example textiles, Velcro, foam rubber, wood  
→ DELO-CA 2153, 2256  
after pretreatment with DELO-QUICK 2002

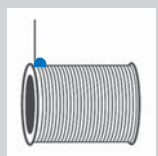
### ▪ Bonding of dissimilar materials

Rubber to metal:  
→ DELO-CA 2106, 2229  
Plastic to metal:  
→ DELO-CA 2229



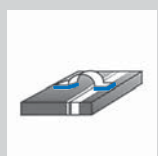
### ▪ Fast fixing

→ DELO-CA 2106



### ▪ Fixing of coil wires

→ DELO-CA 2153, 2256  
subsequent application of DELO-QUICK 2002  
is recommendable



### ▪ Sensitive surfaces

For example black-lacquered or polished surfaces, transparent  
plastics such as PMMA  
→ DELO-CA 2348

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The data and information provided are based on tests performed under laboratory conditions. Reliable information about the behavior of the product under practical conditions and its suitability for a specific purpose cannot be concluded from this. It is the user's responsibility to test the suitability of the product for the intended purpose by considering all specific requirements. Type, physical and chemical properties of the materials to be processed with the product, as well as all actual influences occurring during transport, storage, processing and use, may cause deviations in the behavior of the product compared to its behavior under laboratory conditions. All data provided are typical average values or uniquely determined parameters measured under laboratory conditions. The data and information provided are therefore no guarantee for specific product properties or the suitability of the product for a specific purpose. Nothing contained herein shall be construed to indicate the non-existence of any relevant patents or to constitute a permission, encouragement or recommendation to practice any development covered by any patents, without permission of the owner of this patent. All products provided by DELO are subject to DELO's General Terms of Business. Verbal ancillary agreements are deemed not to exist.

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Adhesives

Dispensing

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## SELECTION CHART

**DELO-CA**

Cyanoacrylates  
one-component · fast-curing

# DELO-CA cyanoacrylates

Product code	2106	2153	2219	2229	2256	2348	2505	2725	2902	2905
Base	methyl ester	methyl ester	ethyl ester	ethyl ester	ethyl ester	alkoxy alkyl	mod. ethyl ester	ethyl ester	ethyl ester	ethyl ester
Color cured product	←————— colorless —————→									
Density [g/cm³]	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Viscosity [mPas]	35	2,000	240	300	3,000	1,400	20	280	15	45
Max. gap filling capacity [mm]	0.03	0.1 – 0.2	0.04	0.05	0.1 – 0.2	0.1	0.03	0.05	0.02	0.03
Curing time [s] until initial strength	tensile shear strength 1 – 2 MPa +23 °C/50 % relative humidity									
Curing time [h] until final strength	+23 °C/50 % relative humidity									
Tensile shear strength [MPa] DIN EN 1465 curing time: 72 h at room temperature	Al/Al sand-blasted									
	PC/PC									
Special features of product	especially suitable for metal and rubber to metal	multi-purpose high-viscous bridges gaps up to 0.2 mm	special type for rubber, such as EPDM, viton, foam rubber medium-viscous	multi-purpose also bridges smaller unevennesses delayed reaction	multi-purpose high-viscous bridges gaps up to 0.2 mm	odorless low efflorescence not classified as hazardous	special type for rubber, such as EPDM, viton, NBR, CR, SBR, NR very thin	multi-purpose also bridges smaller unevennesses	very thin excellent capillary effect	multi-purpose low efflorescence

## Product description

DELO-CA are one-component, liquid, solvent-free adhesives on the basis of cyanoacrylate acid esters.

## Standard temperature range

DELO-CA cyanoacrylates are normally used in a temperature range of –40°C to +100°C. Many product properties depend on the temperature and can permanently change, especially at high temperatures. Therefore, the suitability of the respective adhesive for the intended temperature range of use must be tested according to the application before use. You can find details on the behavior of the products under the influence of elevated temperatures in the respective technical data sheet.

## Processing

DELO-CA can be processed directly from the bottle or efficiently with DELO dispensing units.

## Curing

DELO-CA adhesives cure at room temperature under the influence of air humidity. Normally, the humidity on the component surfaces is sufficient. Ideal curing conditions are a relative humidity of 40 – 80 % at approx. +23 °C.

Before bonding, especially after cleaning, the components must be conditioned at the room climate specified.

## Surface pretreatment

To reach high strengths and long service lives, cleaning is indispensable.

The surfaces to be bonded must be free of oil, grease, separating agents and other contaminations. We recommend our DELOTHEN cleaners.

Adhesion can be improved by grinding or sand blasting.

## Storage life

After delivery in unopened containers at room temperature (max. +23 °C); 6 months. Storage in a refrigerator at 0 °C to +10 °C is recommendable. However, the product must be conditioned to room temperature before use.

## Use

- Fast and high-strength bonding of virtually all materials, for example metals, plastics, elastomers, foam rubber, ceramic, textiles, etc.
- Fixing of components for later assembly

After curing, DELO-CA is brittle and, therefore, not suitable for the bonding of glass. The constant influence of water should be avoided, especially when bonding metal.

## Activator

The activator DELO-QUICK 2002 is used in the following cases:

- Low air humidity
- Surfaces with acidic residues
- Too long reaction time of the DELO-CA adhesive
- Open bondings, such as fixing of coil wires
- Porous or uneven surfaces

## Primer

Difficult to bond, nonpolar plastics, like PE, PP, POM, or silicones, should be pretreated with the primer DELO-PRE 2005.

## Further information

You can find more details on type-specific properties in the technical data sheets and material safety data sheets.