

SELECTION CHART

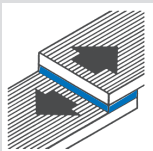
DELO-CA

Cyanoacrylates
one-component · fast-curing

DELO-CA cyanoacrylates

Product code	2153	2348	2905
Base	methyl ester	ethyl ester	ethyl ester
Color <small>cured product</small>	← colorless →		
Density [g/cm ³]	1.1	1.1	1.1
Viscosity [mPas]	2,000	1,600	50
Max. gap filling capacity [mm]	0.1 – 0.2	0.1	0.03
Curing time [s] <small>until initial strength</small>	tensile shear strength 1 – 2 MPa +23 °C/50% relative humidity 15 – 25	20 – 30	10 – 20
Curing time [h] <small>until final strength</small>	← +23 °C/50% relative humidity 24 →		
Tensile shear strength [MPa] <small>DIN EN 1465 curing time: 72 h at room temperature</small>	Al/Al sand-blasted	17	17
	PC/PC	10	6
Special features of product	multi-purpose high-viscous bridges gaps up to 0.2 mm	low odor low efflorescence not classified as hazardous	multi-purpose

Application examples



- **Bonding of metals**

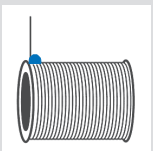
→ DELO-CA 2153

- **Bonding of porous surfaces**

For example textiles, Velcro, foam rubber, wood

→ DELO-CA 2153, 2256

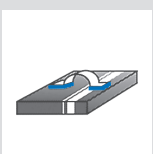
after pretreatment with DELO-QUICK 2002



- **Fixing of coil wires**

→ DELO-CA 2153

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

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 $+100^{\circ}\text{C}$.

Many product properties depend on the temperature and can change permanently, in particular at high temperatures. Therefore, it has to be checked before each use whether a certain adhesive is suitable for the temperatures in the required area of application.

Please see the Technical Data Sheet for more information on how our products react to temperatures.

Processing

The products are normally delivered ready for use. They are applied directly from the container or using 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. $+23^{\circ}\text{C}$.

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

Surface pretreatment

To achieve optimum bond strength, the surfaces must be free from dust, oil, grease, separating agents and other contaminations. For cleaning, we recommend using acetone.

After cleaning, the adhesion of the adhesive can be further enhanced by sand blasting or grinding the surface.

Preservability

After delivery, in the unopened original container at room temperature (max. $+23^{\circ}\text{C}$): 6 months.

Storage in a refrigerator at 0°C to $+10^{\circ}\text{C}$ 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:

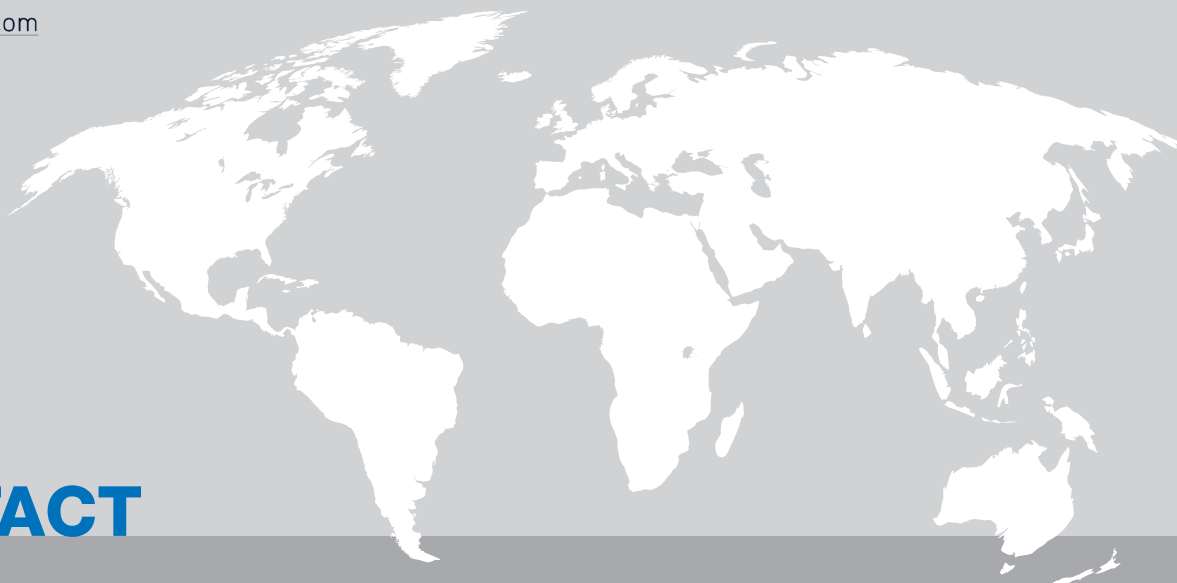
- Low air humidity
- Surfaces with acidic residues
- Too long reaction time of the DELO-CA adhesive
- Open bondings, such as fixing of coil wires
- Porous or uneven surfaces

Further information

More type-specific properties are included in the Technical Data Sheets, Material Safety Data Sheets and Instructions for Use.

For application tests and any question you might have regarding the use of DELO products, please do not hesitate to contact our Engineering Department.

Ce document vous est fourni par
SUPRATEC SYNEO, partenaire
exclusif de DELO en France
www.supratec-syneo.com



CONTACT

DELO Industrial Adhesives
Headquarters

► **Germany** · Windach / Munich



- **China** · Shanghai
- **Japan** · Yokohama
- **Malaysia** · Kuala Lumpur
- **Singapore**
- **South Korea** · Seoul
- **Taiwan** · Taipei
- **Thailand** · Bangkok
- **USA** · Sudbury, MA

..... www.DELO-adhesives.com

Our selection charts/material selection guides are a technical selection aid giving an overview of various product variants. We will be pleased to provide you with sales details, such as available container sizes, stock availability and minimum order quantities, on request.

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 customer's responsibility to test the suitability of a product for the intended purpose by considering all specific requirements and by applying standards the customer deems suitable (e.g. DIN 2304-1). 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.

© DELO – This brochure including any and all parts is protected by copyright. Any use not expressly permitted by the Urheberrechtsgesetz (German Copyright Act) shall require DELO's written consent. This shall apply without limitation to reproductions, duplications, disseminations, adaptations, translations and microfilms as well as to the recording, processing, duplication and/or dissemination by electronic means. 01/19