1-Component Adhesives and Sealants

Contact Cyanoacrylate Adhesives

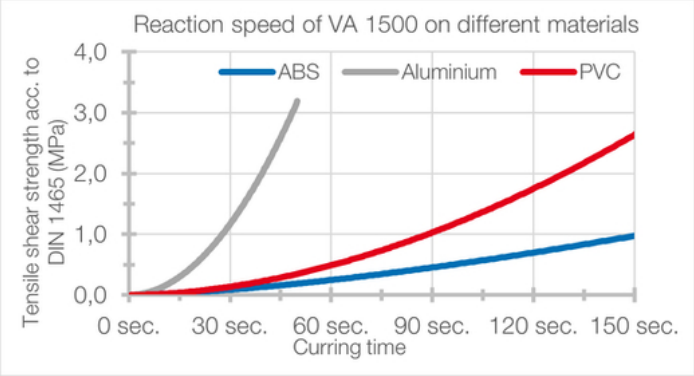
VA 1500 Cyanoacrylate Adhesive

Cyanoacrylate adhesive for rubber and plastic | high viscosity | slower curing

WEICON Contact VA 1500 is suitable for absorbent and porous materials, such as wood, cork, leather and ceramics and can also be used for the bonding of metals, rubber and plastic. VA 1500 can be used in many industrial applications.

Characteristics		
Base		ethyl
Texture		liquid
Texture		colourless, clear substance
Colour after curing		colourless
Silicone-free		yes
Processing		
Processing temperature		+15 °C to +40 °C
Relative air humidity		40% - 70%
Viscosity	25 °C Cone / Plate	1.000 - 1.500 mPa·s
Density	(+20 °C)	1,1 g/cm³
Gap bridging up to max.		0,2 mm
Curing		
Initial adhesion in seconds (shear strength: 0,5 MPa)		
- measured at		23 °C and 50 % relative humidity
on aluminium sandblasted		15-20 sec.
on ABS untreated		90-120 sec.
on rigid PVC		70-80 sec.
Final strength	(100 % strength)	24 h
Mechanical properties after curing		
Shear strength according to DIN EN 1465		
Steel sandblasted		14-21 MPa
Aluminium sandblasted		7-15 MPa
Rigid untreated PVC		8-13 MPa
Untreated ABS		6-12 MPa
PC (polycarbonate)		6-12 MPa

Thermal parameters		
Temperature resistance		-50°C to +80°C, briefly up to +100°C
Softening temperature		+150 °C
Refraction index		~ 1,49 nD20
Thermal expansion coefficient		~ 80 x 10^-6 m/(m·K)
Thermal conductivity	DIN EN ISO 22007-4	~0,1 W/m·K
Electrical parameters		
Resistance	DIN IEC93	>10^15 Ω·cm
Dielectric strength		~ 25 kV/mm
Approvals / Guidelines		
IMPA Code		812965
MIL-Spec	comply with	MIL-A-46050C Type II Class 3



Instructions for use

When using WEICON products, the physical, safety-related, toxicological and ecological data and regulations in our EC safety data sheets (www.weicon.com) must be observed.

Surface pre-treatment

The successful application of WEICON Contact Cyanoacrylate Adhesives depends on the thorough preparation of the surfaces. This is the most important factor for overall success. Dust, dirt and moisture or wetness have a negative impact on the adhesion.

Therefore, before processing WEICON Contact Cyanoacrylate Adhesives, the following points must be observed: For a flawless adhesive bond, adhesive surfaces must be clean and dry (clean and degrease with WEICON Surface Cleaner). Smooth surfaces should be roughened mechanically. To improve the adhesion of plastics that are difficult to bond (e.g. PE, PP, POM, PTFE), thermoplastic elastomers (TPE) and silicones, WEICON CA-Primer can be applied to the bonding surface.

Contact Primer for Polyolefines

Without pre-treatment, many plastics cannot or can only be bonded under certain conditions. When these plastics are pre-treated with WEICON Contact Primer, their surface structure changes. This makes it possible to bond plastics that are otherwise difficult to bond, e.g. polyethylene (PE) and

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polypropylene (PP) from the polyolefine group. Even modern thermoplastic elastomers (TPE), PTFE and related plastics as well as silicones can be bonded, when pre-treated with WEICON Contact Primer.

Processing

The products are supplied ready for use. Depending on the form of delivery, they can be processed by hand directly from the container or with appropriate dosing equipment. Apply WEICON Contact Cyanoacrylate Adhesive to just one of the bonding surfaces. The layer thickness when applying the adhesive should be between min. 0.05 mm and max. 0.2 mm, as otherwise complete curing cannot be guaranteed. For large-surface bondings, WEICON Contact Cyanoacrylate Adhesives should be applied in dots in order to prevent inner tensions. WEICON Contact Cyanoacrylate Adhesives are very economical. One drop is sufficient for an adhesive area of 3 to 5 cm^2.

Curing

After applying the product, the parts to be bonded must be joined quickly and fixed if possible, since the curing of the products has already started as a result of the humidity in the ambient air or condensed on the bonding surfaces. The components should be bonded at a relative air humidity level between 40 % and 70 %. Below 40 %, the curing process is slowed down significantly or even prevented altogether. At an air humidity level above 70 % or with strongly alkaline substrates (e.g. glasses), there is a risk of shock curing. In these cases, certain materials show a drop in strength by 10 % to 15 % due to tensions in the adhesive layer. Alkaline surfaces (pH value >7) accelerate the curing process, acidic surfaces (pH value <7) slow down the curing process and can prevent polymerisation altogether in extreme cases. If curing is delayed or disturbed by factors such as a too wide adhesive gap, porous or acidic surface, the use of WEICON Contact Activator is recommended.

WEICON Contact Activator

The activator speeds up the curing process of WEICON Contact Cyanoacrylate Adhesives. When applied to absorbing surfaces, e.g. wood or foam etc., and all chemically-treated surfaces, e.g. zinc galvanized metals etc., the activator's effectiveness lasts approx. one minute. On non-absorbent surfaces, the activator's effectiveness lasts up to approx. 12 hours. Use is recommendable with:

- highly viscous WEICON Contact types
- large thickness of the adhesive layer
- absorbing and porous surfaces
- passive materials (alkaline surfaces, like for example zinc-coated metal parts)
- disadvantageous environmental conditions (low temperatures, low air humidity < 30 %).

Storage

WEICON Contact Cyanoacrylate Adhesives have a shelf life of at least 9 months, when stored in unopened condition at room temperature (+18 °C to +25 °C) in a dry and dark space. Temperatures of approx. +5 °C will increase the shelf life to 12 months.

Scope of delivery

Adhesive

Accessories

11207150	Surface Cleaner, 150 ml, transparent
11207400	Surface Cleaner, 400 ml, transparent
12500150	CA-Activator Spray, 150 ml
12505150	CA-Activator Spray AC, 150 ml
12450010	CA Primer for Polyolefines, 10 ml
12450100	CA Primer for Polyolefines, 100 ml
12955170	Dosing Tip, 1 PCE
12955175	Dosing Tip, 1 PCE
12650030	Contact Filler Contact Filler, 30 g, transparent 30 g, transparent
12651030	Contact Filler Contact Filler, 30 g, black 30 g, black
12470012	CA-Remover, 12 ml
12470030	CA-Remover, 30 ml
10953001	Processing Spatula, 1 PCE

Available sizes

12150012	VA 1500 Cyanoacrylate Adhesive, 12 g
12150030	VA 1500 Cyanoacrylate Adhesive, 30 g
12150060	VA 1500 Cyanoacrylate Adhesive, 60 g
12150500	VA 1500 Cyanoacrylate Adhesive, 0,5 kg

Conversion table

(°C x 1.8) + 32 = °F	Nm x 8.851 = lb·in
mm/25.4 = inch	Nm x 0.738 = lb·ft
µm/25.4 = mil	Nm x 141.62 = oz·in
N x 0.225 = lb	mPa·s = cP
N/mm^2 x 145 = psi	N/cm x 0.571 = lb/in
MPa x 145 = psi	kV/mm x 25.4 = V/mil

To the product detail page:

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