



Contact Cyanoacrylate Adhesives

Super fast, economical,
versatile, durable

Contact

WEICON Contact Cyanoacrylate Adhesives are cold-curing one-component adhesives, free of solvents. They quickly polymerise by reacting with moisture on the surfaces being bonded. Under only light pressure they will bond within seconds almost all materials to and among each other, such as:

- metals
- plastics
- glass and ceramics
- wood
- leather
- natural and synthetic rubber.



WEICON Cyanoacrylate Adhesives offer numerous advantages:

- very high bond strengths
- clean and optically appealing bondings on widely differing materials
- time and cost savings
- high cure speed allows immediate on-processing
- no material stress on surfaces as occurs with welding
- no need for auxiliary fixing devices
- thus simple and quick assemblies are made possible
- the application of increased temperatures or of activators is normally not required.



WEICON Contact Cyanoacrylate Adhesives provide high structural strength, with a temperature resistance of up to +80°C (two types up to +135°C) and a good resistance against many chemicals. In many instances, the cured bond joint proves to be harder than the material of the bonded parts.



A wide range of product types is offered for a variety of applications. The types differ physically, for example by their viscosity, and chemically among others by the size of their molecules:

Ethyl ester based VA types incl. Gel type:

- larger molecules
- less molecular anchoring points result in a higher elasticity of the bond joint

These types are recommended for bonding plastics and rubber.

Methyl ester based VM types:

- their molecules are very small
- this results in many load-bearing links of high tensile strength

These types are, therefore, preferably used for bonding metals.

Alkoxy ethyl based VA 1460:

- particularly low odour
- larger molecules
- the joints are more flexible and less sensible to humidity
- longer cure time allows re-alignment of the parts after joining

This type is especially recommended where the white "blooming" of the bond line is not tolerated for optical reasons.

Type range

VA 20

- low viscosity
- very fast-curing
- for bonding rubber (natural and synthetic) and metal-to-plastic bonds

VA 8312

- low viscosity
- very fast-curing
- provides bonding capacity within the widest scope of rubber materials (e.g. solid rubber or cellular rubber) and plastics
- especially suitable for difficult-to-bond APTK or EPDM elastomers
- also suitable for bonding polyolefines in combination with CA-Primer
- the ideal adhesive in combination with WEICON Filler for instant bonding and filling of cracks, gaps, holes and irregularities



VA 100

- medium viscosity
- fast-curing
- universal type for bonding plastics, rubber and metals, to themselves or in combination
- the ideal adhesive also for the DIY sector

VA 300

- increased viscosity
- medium-fast curing
- for bonding plastics, rubber and metals to and among each other
- suitable for absorbing and porous materials such as wood, cork, leather and ceramic

VA 1500

- high viscosity
- slow-curing
- for bonding rubber and plastics
- bridges larger tolerances of up to max. 0,2 mm
- also for rough and porous surfaces

VA 2500 HT

- high viscosity
- slow-curing
- high temperature resistant up to +135°C
- residual elasticity after curing
- high impact strength
- for bonding rubber and plastics as well as metal to plastic

New



VA 250 Black

- high viscosity
- slow-curing
- residual elasticity after curing
- black, rubber toughened adhesive, ideal for bonding rubber (natural and synthetic) and plastics as well as metal to plastic
- high temperature resistant up to +135°C
- excellent peel and shock resistance

New

Contact Gel

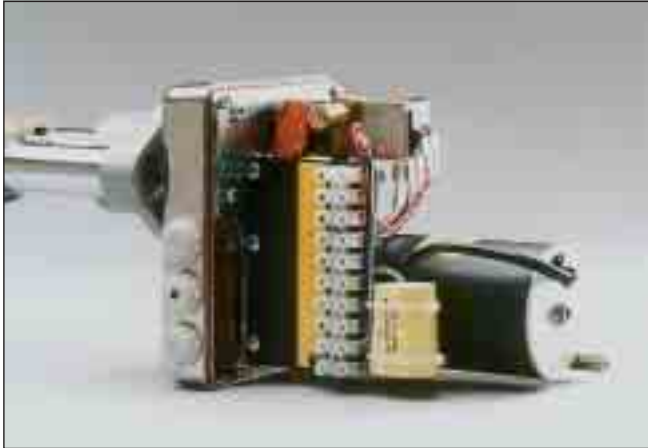
- thixotropic (pasty)
- slow-curing
- for porous surfaces and larger tolerances
- allows application on vertical surfaces
- allows re-alignment of the parts after contact
- the ideal adhesive for hobby and model making

VA 1460

- low viscosity
- medium fast-curing
- special features: low-odour and non-efflorescent ("non-blooming")
- suitable for a variety of materials
- bond joints are more flexible and less sensible to humidity

VM 20

- low viscosity
- very fast-curing
- for metal-metal combinations, especially in assembly line manufacture for the bonding of close fitting parts



VM 120

- medium viscosity
- fast-curing
- for all kinds of metal-bonding
- allows short-term re-alignment of parts brought together



VM 2000

- high viscosity
- slow-curing
- for metal-metal combinations, also on vertical surfaces
- bridges larger bond gaps of up to max. 0,2 mm
- also suitable for rough and porous surfaces

Contact Filler

New

Filling material for instant bonding and filling of cracks, gaps, holes and irregularities in combination with WEICON Contact adhesive VA 8312.

Apply in layers of
adhesive - filler - adhesive

The material mix can be sanded and overpainted after curing.



CA-Primer for Polyolefines

Pre-treatment with WEICON CA-Primer provokes a change of the surface tension. Thus the bonding of difficult-to-bond polyolefine plastics such as

- polyethylene (PE)
 - polypropylene (PP)
- will be made possible.

Also, thermoplastic elastomers, PTFE and related plastics can be bonded after pre-treatment with WEICON CA-Primer.



Cyanoacrylate Activator

WEICON Cyanoacrylate Activator accelerates the cure of WEICON Contact Cyanoacrylate Adhesives.

Furthermore, its application is recommended for

- high viscous WEICON Contact types
- large thickness of the adhesive layer
- inactive materials
- unfavourable environmental conditions.

Type selection chart

WEICON Contact Material	VA 20	VA 8312	VA 100	VA 300	VA 1500	VA 2500 HT	VA 250 Black	Gel	VA 1460	VM 20	VM 120	VM 2000
Metal	+	+	++	+	+	+	+	+	+	++	++	++
Plastics	++	++	++	++	++	++	++	+	++	+	+	+
Rubber	++	++	++	+	++	++	++	+	++	+	+	+
APTK/EPDM Elastomers	+	++	+	+	+	+	+		+			
Wood			+	++	+	+	+	+				
Balsa wood	+	+	+	+	+	+	+	++				
Glass/Ceramics	+		++	++	+	+	+	++	+			
Leather		+	++	++	++	+	+	++	+			

(++) very recommendable

(+) acceptable bonds

Within the above scope of applications, bonding of different material combinations such as metal/rubber and metal/plastics is possible, too.



Directions for application

- To ensure a perfect bonding, the surfaces to be joined must be clean and dry (to clean and degrease use e.g. WEICON Cleaner S).
- Smooth surfaces should be mechanically roughened.
- Apply WEICON Contact Cyanoacrylate Adhesive only on one of the surfaces to be bonded.
- The bond line should not exceed 0,2 mm (0,008") in thickness, otherwise complete hardening cannot be guaranteed.
- For bonding large surfaces WEICON Contact Cyanoacrylate Adhesive should be applied drop by drop to avoid inner tensions.
- WEICON Contact Cyanoacrylate Adhesives are very economical. One drop is sufficient to cover approx. 3 - 5 cm² of bonded surface.
- The parts to be joined should be bonded in an atmosphere of 40 - 70 % relative humidity. In conditions of below 30% the cure will be considerably slowed or even inhibited. Some materials show a drop in bond strength of 10 - 15 % if the relative humidity is beyond 90%.
- Basic-reacting surfaces (pH-value <7) will speed the cure, acidic-reacting surfaces will retard the cure, and under extreme conditions will completely inhibit the polymerization.

Physiological properties Health and safety at work

Physiologically, WEICON Contact Cyanoacrylate Adhesives may be considered as essentially harmless. However, ensure sufficient ventilation of workplaces to cope with the adhesive's typical vapours.



Vapours of WEICON Contact may cause irritation of the mucous membranes and the eyes. Avoid contact with skin and eyes (wear gloves and protective goggles). The use of WEICON Hand Protective Foam prevents skin irritation and hand cleaning problems. EC Safety Data Sheets are available upon request.



Storage

WEICON Contact Cyanoacrylate Adhesives should always be stored in a cool, dry and dark place. The shelf life is at least 9 months if stored at room temperature (18 - 25°C). If stored at +5°C (e.g. in a refrigerator) the shelf life can be extended to 12 months. By freezing down to -20°C the adhesives will solidify and must be brought to room temperature prior to use.



Important note:

The specifications and recommendations given in this brochure must not be seen as guaranteed product characteristics. They are based on our laboratory tests and on practical experience. Since individual application conditions are beyond our knowledge, control and responsibility, this information is provided without any obligation. We do guarantee the continuously high quality of our products. However, own adequate laboratory and practical tests to find out if the product in question meets the requested properties are recommended. A claim cannot be derived from them. The user bears the only responsibility for non-appropriate or other than specified applications.



Technical data

WEICON Contact liquid	VA 20	VA 8312	VA 100	VA 300	VA 1500	VA 2500 HT	VA 250 Black	Gel	VA 1460	VM 20	VM 120	VM 2000
Ester type	ethyl								alkoxy-ethyl	methyl		
Condition/nature	Colourless clear liquid - VA 2500 HT opaque, VA 250 black											
Properties	especially suitable for rubber and plastic bondings					high-temperature resistant, residual elasticity after curing		pasty	low odour, little efflorescent	especially suitable for metal bondings		
Viscosity at +20°C mPa·s (Brookfield)	< 20	20-40	60-120	200-300	1000-1500	2000-3000	2000-3000	60000-90000	120-200	20-40	100-130	1700-2000
Specific gravity at +20°C (g/cm ³)	1,04	1,05	1,06	1,07	1,08	1,06	1,06	1,08	1,02	1,10	1,10	1,12
Flash point to Abel-Pensky DIN 55213 in °C	87											
Initial adhesion* in seconds to Aluminium ¹⁾	30-60	30-60	30-60	60-90	90-120	40-80	90-120	90-120	30-60	50-70	50-70	70-90
To Nora test rubber ²⁾	2-15	2-10	3-20	2-10	5-30	25-50	20-40	20-30	10-60	10-60	10-60	10-90
to rigid PVC ³⁾	5-60	5-30	10-60	10-60	10-120	25-100	40-80	40-80	20-150	30-120	30-120	30-150

* Determined at +23°C and 50% relative air humidity. Handling strength can be achieved within the indicated times.

- 1) Aluminium, type Al Cu Mg 2pl., non-pretreated
- 2) Nora test rubber, ground
- 3) Rigid PVC Trovidur® EN, non-pretreated

WEICON Contact - cured	
Temperature resistance	all types from -20° to approx. +80°C (intermittent -30° to +100°C) – VA 2500 HT and VA 250 Black up to +135°C
Softening range in °C	160-170
Refractive index $n_{D^{20}}$	1,49 (similar to glass) - all types except VA 2500 HT and VA 250 Black
Specific forward resistance to DIN 53 482* (Ω mm)	> 10 ¹⁵
Dielectric constant ϵ_r at 1 MHz to DIN 53 483*	5,4
Dielectric strength to DIN 53 481* (KV/mm)	11-13
Solubility	Dimethyl formamide, dimethyl sulfoxide, acetonitrile, alkali. Swelling may occur by long-time storage in ethyl acetate, acetone and methylene chloride.

* Aligned to DIN-standard, measured on bonded joints.

Packaging

WEICON Contact Cyanoacrylate Adhesives are available in 10 g, 20 g and 50 g safety dosing bottles (Exceptions: VM-types, VA 2500 HT and VA 250 Black only 20 g and 50 g). WEICON Contact Filler is available in 30 g bottles. Furthermore, all types (except Gel type) are available in bulk containers of 500 g, 10 kg and 20 kg.

WEICON Contact Gel type: 20 g tube.
WEICON Contact VA 100: also available in 3 g tube.
WEICON Primer for Polyolefines: 10 ml brush-top bottle.
WEICON Cyanoacrylate Activator: 150 ml spray can.
Other package sizes upon request.



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Distributed by:



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