

VA 2407 Cyanoacrylate Adhesive



universally applicable | strong adhesion | fast curing

VA 2407 is a colourless and crystal clear curing two-component cyanoacrylate adhesive for bonding a wide variety of materials with and to each other. It adheres very well to many plastics (e.g. polycarbonate), steel, stainless steel, aluminium, ceramics, glass and rubber. The newly developed adhesive combines the advantages of instant adhesives with the process reliability of 2-component adhesives. The high-strength and fast-curing structural adhesive is sandable and paintable after approx. 25 minutes. It is resistant to weathering, many aggressive chemicals, impact stress and vibration. It is temperature-resistant from -20 °C to +120 °C (-40 to +248 °F). Depending on the geometry of the bond, gaps of up to 5 mm can be covered with VA 2407. Due to its fast and impact-resistant curing, it is particularly suitable for bonding e.g. plastic and rubber. It can also be used for structural adhesive bonding, where a coloured adhesive joint would affect the overall appearance of the component. VA 2407 bonds transparent plastics together, like Plexiglas and other materials, in a clean and visually appealing way. The adhesive is suitable for a wide variety of applications in plastic technology, mechanical construction, model and mould construction, metal construction, ship and boat building, bodywork and vehicle construction, trade fair and exhibition construction and many other areas of industry.

Characteristics

Specific properties	2C cyanoacrylate
Base	ethyl acrylate
Texture	pasty
Colour	transparent

Contact Cyanoacrylate Adhesives

Processing

Mixing ratio by weight		4:1
Viscosity	25 °C Cone / Plate	1.000 mPa·s
Density	(+20 °C)	1,1 g/cm ³
Gap bridging up to max.		5 mm

Curing

Initial adhesion in seconds (shear strength: 0,5 MPa)		
- measured at	23 °C and 50 % relative humidity	
on aluminium sandblasted	10 - 30 sec.	
on ABS untreated	180-240 sec.	
on rigid PVC	90-150 sec.	
Pot life	at 20 °C, 10 g batch	5 min.
Final strength	(100 % strength)	24 h

Mechanical properties after curing

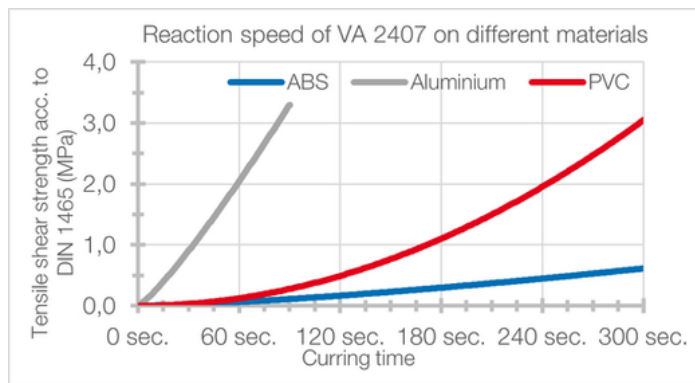
Shear strength according to DIN EN 1465		
Steel sandblasted	16 - 21 MPa	
Aluminium sandblasted	10 - 15 MPa	
Rigid untreated PVC	10-14 MPa	
Untreated ABS	13-15 MPa	
PC (polycarbonate)	12 - 17 MPa	

Thermal parameters

Temperature resistance	-20 °C to +120 °C	
Softening temperature	+150 °C	
Flashpoint	+87 °C (+189 °F)	
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



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

Note

The specifications and recommendations given in this technical data sheet 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.

VA 2407 Cyanoacrylate Adhesive

2-Component Adhesives and Sealants

Contact Cyanoacrylate Adhesives

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 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. 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 cm².

Curing

After applying the product, the parts to be bonded must be joined quickly and fixed if possible, since the curing of the products is 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.

Storage

WEICON VA 2407 has 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 possibly dark space. Temperatures of approx. +5 °C will increase the shelf life to 12 months.

Scope of delivery

Mixing Nozzle 10:1 B | Adhesive

Accessories

10063091	Mixing Nozzle VA 2407 10g, 1 PCE, orange
10024317	Surface Cleaner, 150 ml, transparent
10024313	Surface Cleaner, 400 ml, transparent
10000275	CA Primer for Polyolefines, 10 ml
10000278	CA Primer for Polyolefines, 100 ml
10010887	Processing Spatula, 1 PCE
10059295	Dispenser D50 10:1, 1 PCE
10023341	Special Piston, 1 PCE
10023115	Mixing Nozzle 10:1 B, 1 PCE, orange

Available sizes

10063086	VA 2407 Cyanoacrylate Adhesive, 10 g, transparent
10063088	VA 2407 Cyanoacrylate Adhesive, 50 g, transparent

Conversion table

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$	$\text{Nm} \times 8.851 = \text{lb}\cdot\text{in}$
$\text{mm}/25.4 = \text{inch}$	$\text{Nm} \times 0.738 = \text{lb}\cdot\text{ft}$
$\mu\text{m}/25.4 = \text{mil}$	$\text{Nm} \times 141.62 = \text{oz}\cdot\text{in}$
$\text{N} \times 0.225 = \text{lb}$	$\text{mPa}\cdot\text{s} = \text{cP}$
$\text{N}/\text{mm}^2 \times 145 = \text{psi}$	$\text{N}/\text{cm} \times 0.571 = \text{lb}/\text{in}$
$\text{MPa} \times 145 = \text{psi}$	$\text{kV}/\text{mm} \times 25.4 = \text{V}/\text{mil}$

To the product detail page:



Note

The specifications and recommendations given in this technical data sheet 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.

WEICON Middle East L.L.C.
United Arab Emirates
phone +971 4 880 25 05
info@weicon.ae

WEICON Czech Republic s.r.o.
Czech Republic
phone +42 (0) 417 533 013
info@weicon.cz

WEICON GmbH & Co. KG
(Headquarters) Germany
phone +49 (0) 251 9322 0
info@weicon.de

WEICON Romania SRL
Romania
phone +40 (0) 3 65 730 763
office@weicon.com

WEICON South East Asia Pte Ltd
Singapore
Phone (+65) 6710 7671
info@weicon.com.sg

WEICON Inc.
Canada
phone +1 877 620 8889
info@weicon.ca

WEICON Ibérica S.L.
Spain
phone +34 (0) 914 7997 34
info@weicon.es

WEICON Italia S.r.l.
Italy
phone +39 (0) 010 2924 871
info@weicon.it

WEICON SA (Pty) Ltd
South Africa
phone +27 (0) 21 709 0088
info@weicon.co.za

WEICON Kimya Sanayi Tic. Ltd. Şti.
Türkiye
phone +90 (0) 212 465 33 65
info@weicon.com.tr