

RK-1500 Structural Acrylic Adhesive



liquid | high-strength | fast-curing

The structural acrylic adhesive WEICON RK-1500 is particularly suitable for bonding glass, metal and ceramics. Together with an activator, the adhesive forms a 2C-system that is processed in the no-mix procedure. The elimination of mixing processes simplifies the application considerably. The transparent adhesive has a high impact, peel and shear strength. Thanks to its low viscosity, RK-1500 is particularly suitable for use on large surfaces. RK-1500 can be used in mechanical and apparatus engineering, vehicle construction, tool and mould making, in the building and furniture industry, and in many other industrial applications.

Characteristics

Base	methyl methacrylate
Texture	flowable
Colour	pale yellow, transparent

Processing

Processing procedure	No-Mix
Processing temperature	+10°C to +40°C
Curing temperature	mind. +18 °C
Viscosity of the mixture	4.500 mPa·s
Density of the mixture	1,00 g/cm ³
Gap bridging up to max.	0.4 mm

Curing

Handling strength	(35 % strength)	5 min.
Working strength after	(50 % strength)	8 min.
Final strength	(100 % strength)	24 h

Note
Alle in diesem Technischen Datenblatt enthaltenen Angaben und Empfehlungen stellen keine zugesicherten Eigenschaften dar. Sie beruhen auf unseren Forschungsergebnissen und Erfahrungen. Sie sind jedoch unverbindlich, da wir für die Einhaltung der Verarbeitungsbedingungen nicht verantwortlich sein können, da uns die speziellen Anwendungsverhältnisse beim Verwender nicht bekannt sind. Eine Gewährleistung kann nur für die stets gleichbleibende hohe Qualität unserer Erzeugnisse übernommen werden. Wir empfehlen, durch ausreichende Eigenversuche festzustellen, ob von dem angegebenen Produkt die von Ihnen gewünschten Eigenschaften erbracht werden. Ein Anspruch daraus ist ausgeschlossen. Für falschen oder zweckfremden Einsatz trägt der Verarbeiter die alleinige Verantwortung.

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. Turkey phone +90 (0) 212 465 33 65 info@weicon.com.tr

Mechanical properties after curing

Lap shear strength material thickn. 1,5mm DIN EN 1465	
Steel 1.0338 sandblasted	25 N/mm ²
Stainless steel V2A sandblasted	30 N/mm ²
Aluminium sandblasted	20 N/mm ²
PVC-rigid roughened	11 N/mm ²
CFRP	27 N/mm ²
ABS	6 N/mm ²
PC (polycarbonate)	10 N/mm ²
GFRP	20 N/mm ²
PMMA	8 N/mm ²
Polyamide 6.6	3 N/mm ²

Thermal parameters

Temperature resistance	-50 °C to +130 °C, briefly up to +180 °C
------------------------	--

Specific properties

IMPA Code	812992
ISSA Code	75.629.53

Instructions for use

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

Surface pre-treatment

Clean and dry bonding surfaces are essential for flawless adhesive bonding (e.g. cleaning and degreasing with WEICON Surface Cleaner). Higher strengths can be achieved by further pre-treatment of the surfaces, such as roughening by blasting or grinding. Some plastics, especially polyamides, PTFE, polyolefines etc., can only be bonded after special pre-treatment of the surfaces by e.g. fluorination, low-pressure plasma, corona, flame treatment, or similar.

Processing

Processing the RK Activator: Depending on the size of the bonding gap, the RK Activator is applied to one or both sides of the bonding surfaces (brush, spray, dip). For adhesive gaps up to max. 0.4 mm, a single-sided application is sufficient; for adhesive gaps up to max. 0.8 mm and/or rough, porous as well as passive surfaces (chrome, nickel, etc.), a double-sided application is required. For smooth plastic and metal surfaces approx. 30 g/m², for rough and porous surfaces up to 150 g/m² activator are required. The flash-off time is at least 5 minutes at room temperature (+20°C). A significant advantage over other adhesive systems is that the coated workpieces can be stored at room temperature (+20°C) for up to 30 days without the effectiveness decreasing. **Processing of the RK Adhesive:** The adhesive is only applied on to side and usually to the surface not coated with activator. The bonding gap can be up to 0.80 mm (only with activator applied to both sides). Adhesive joints with a thickness of 0.15 mm to 0.25 mm generally have the highest tensile shear strength. For smooth plastic and metal surfaces approx. 180 g/m², for rough and porous surfaces up to 300 g/m² activator are required. Processing temperature: The processing should be done at room temperature (+20°C). Higher temperatures e.g.

RK-1500 Structural Acrylic Adhesive

+40°C shorten the positioning and curing times by approx. 30%; low temperatures around +10°C increase the respective times by approx. 50%, until from +5°C almost no reaction takes place.

Storage

Storage of the RK Adhesive: WEICON RK Construction Adhesives have a shelf life of at least 12 months at constant room temperature of approx. +20°C and dry storage, while at temperatures between +1°C and +7°C the shelf life can be extended up to 24 months. This applies to closed original containers that are not exposed to direct or indirect sunlight. If the storage temperature exceeds +40°C and the air humidity is high, the storage stability is reduced to 6 months. Storage of the RK Activator: WEICON RK Activator has a shelf life of 6 months at constant room temperature of approx. +20°C and dry storage, whereas at temperatures between +1°C and +7°C the shelf life can be extended up to 24 months. This applies to closed original containers that are not exposed to direct or indirect sunlight. If the storage temperature exceeds +40°C and the air humidity is high, the storage stability is reduced significantly.

Accessories

- 10953001 Processing spatula, 1 PCE
- 10953003 Processing spatula, 1 PCE
- 13955050 Primer Applicator, 1 PCE

Conversion table

(°C x 1,8) + 32 = °F	Nm x 8,851 = lb·in
mm/25,4 = inch	Nm x 0,738 = lb·ft Nm
µm/25,4 = mil	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

Available sizes:

- 10563860 RK-1500 Structural Acrylic Adhesive, 60 g, pale yellow, transparent
- 10563906 RK-1500 Structural Acrylic Adhesive, 6 kg, pale yellow, transparent
- 10563330 RK-1500 Structural Acrylic Adhesive, 0,31 kg, pale yellow, transparent
- 10563800 RK-1500 Structural Acrylic Adhesive, 1 kg, pale yellow, transparent

To the product detail page:



Note
Alle in diesem Technischen Datenblatt enthaltenen Angaben und Empfehlungen stellen keine zugesicherten Eigenschaften dar. Sie beruhen auf unseren Forschungsergebnissen und Erfahrungen. Sie sind jedoch unverbindlich, da wir für die Einhaltung der Verarbeitungsbedingungen nicht verantwortlich sein können, da uns die speziellen Anwendungsverhältnisse beim Verwender nicht bekannt sind. Eine Gewährleistung kann nur für die stets gleichbleibende hohe Qualität unserer Erzeugnisse übernommen werden. Wir empfehlen, durch ausreichende Eigenversuche festzustellen, ob von dem angegebenen Produkt die von Ihnen gewünschten Eigenschaften erbracht werden. Ein Anspruch daraus ist ausgeschlossen. Für falschen oder zweckfremden Einsatz trägt der Verarbeiter die alleinige Verantwortung.

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. Turkey phone +90 (0) 212 465 33 65 info@weicon.com.tr