

# RK-1500 Structural Acrylic Adhesive



## Liquid | strong | 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	
Minimum shelf life	at room temperature	12 mon.
Minimum shelf life	from +2 °C to +7 °C	24 Mon.

### Processing

Processing procedure	No-Mix	
Processing temperature	+10°C to +40°C	
Curing temperature	> +18 °C	
Cure temperature	+18	
Viscosity	4.500 mPa·s	
Density of the mixture	1,00 g/cm <sup>3</sup>	
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

### Mechanical properties after curing

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

### Thermal parameters

Temperature resistance	-50 °C to +130 °C, briefly up to +180 °C
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### Approvals / Guidelines

ISSA Code	75.629.53
IMPA Code	812992

### 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](http://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.

### Application

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/m<sup>2</sup>, for rough and porous surfaces up to 150 g/m<sup>2</sup> 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/m<sup>2</sup>, for rough and porous surfaces up to 300 g/m<sup>2</sup> activator are required. Processing temperature: The processing should be

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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.

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done at room temperature (+20°C). Higher temperatures e.g. +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

RK adhesive and RK activator:

WEICON RK construction adhesives should be stored in a dry place at a constant room temperature. Unopened containers can be stored at temperatures from +18 °C to +25 °C. Protect from direct sunlight. If the storage temperature exceeds +40 °C and the air humidity is high, the shelf life is reduced to 6 months.

## Scope of delivery

RK1500 mass | Activator | Wooden spatula | Tip for RK1300/1500

## Accessories

- 10010887 Processing Spatula short, 1 PCE
- 10022562 Processing Spatula long, 1 PCE
- 10032350 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
µm/25.4 = mil	Nm x 141.62 = oz·in
N x 0.225 = lb	mPa·s = cP
N/mm <sup>2</sup> x 145 = psi	N/cm x 0.571 = lb/in
MPa x 145 = psi	kV/mm x 25.4 = V/mil

## Available sizes

- 10008905 RK-1500 Structural Acrylic Adhesive, 60 g, pale yellow, transparent
- 10100180 RK-1500 Structural Acrylic Adhesive, 6 kg, pale yellow, transparent
- 10016249 RK-1500 Structural Acrylic Adhesive, 0,31 kg, pale yellow, transparent
- 10002622 RK-1500 Structural Acrylic Adhesive, 1 kg, pale yellow, transparent

To the product detail page:



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