

RK-1300 Structural Acrylic Adhesive



Pasty | strong | fast-curing

The structural acrylic adhesive WEICON RK-1300 has high impact, peel and shear strength. The system consists of one adhesive and one activator, which are used in the “no mix” procedure. This makes processing easier by eliminating mixing procedures. The product is particularly suitable for bonding large surfaces of many different materials such as metals, ferrites and rigid plastics. WEICON RK-1300 can be used in mechanical and apparatus engineering, vehicle construction, tool and mould making, the building and furniture industry, and in many other industrial areas.

Characteristics

Base	methyl methacrylate	
Texture	pasty	
Colour	beige, opaque	
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	21.000 mPa·s	
Density of the mixture	1,2 g/cm ³	
Gap bridging up to max.	0.4 mm	

Curing

Handling strength	(35 % strength)	6 min.
Working strength after	(50 % strength)	9 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 ²
Stainless steel V2A sandblasted		25 N/mm ²
Aluminium sandblasted		20 N/mm ²
PVC-rigid roughened		7 N/mm ²
CFRP		24 N/mm ²
ABS		6 N/mm ²
PC (polycarbonate)		10 N/mm ²
GFRP		16 N/mm ²
PMMA		9 N/mm ²
Polyamide 6.6		2 N/mm ²

Thermal parameters

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

ISSA Code	75.629.52
IMPA Code	812991

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

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/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

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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

RK1300 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 ² x 145 = psi	N/cm x 0.571 = lb/in
MPa x 145 = psi	kV/mm x 25.4 = V/mil

Available sizes

10000118 RK-1300 Structural Acrylic Adhesive, 60 g, beige, opaque
 10007378 RK-1300 Structural Acrylic Adhesive, 1 kg, beige, opaque
 10007508 RK-1300 Structural Acrylic Adhesive, 0,33 kg, beige, opaque
 10100094 RK-1300 Structural Acrylic Adhesive, 6 kg, beige, opaque

To the product detail page:



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