

Easy-Mix RK-7100 Structural Acrylic Adhesive



Fast-curing | high-strength | impact-resistant | residual elasticity

The structural acrylic adhesive WEICON Easy-Mix RK-7100 can be used to bond numerous materials, such as plastics, metals and ceramics with high tensile, shear and peel strength. It is particularly suitable for structural bondings where high strength connections are required. It is highly viscous and is therefore suitable for processing on vertical surfaces. RK-7100 is universally applicable and can be used, for example, in plastics technology, in metal construction, in car body and vehicle construction, in mechanical engineering, in electrical engineering, model and mould making, and in trade show and exhibition construction.

Characteristics

Base	methyl methacrylate
Texture	viscous

Processing

Processing procedure	Easy-Mix
Processing temperature	+10°C to +40°C
Curing temperature	> +16 °C
Mixing ratio by weight	1:1
Viscosity of the mixture	40.000-60.000 mPa·s
Density of the mixture	0,98-1,02 g/cm ³
Gap bridging up to max.	5 mm

Curing

Pot life	at 20 °C	5 min.
Handling strength	(35 % strength)	25 min.
Working strength after	(50 % strength)	60 min.
Final strength	(100 % strength)	12 h

Mechanical properties after curing

Tensile strength	DIN EN ISO 527-2	24 N/mm ²
Elongation at break (tensile)	DIN EN ISO 527-2	28 %
E-modulus (tensile)	DIN EN ISO 527-2	1200 - 1700 MPa
Lap shear strength material thckn. 1,5mm DIN EN 1465		
Steel 1.0338 sandblasted		23 N/mm ²
Stainless steel V2A sandblasted		22 N/mm ²
Aluminium sandblasted		20 N/mm ²
PVC-rigid roughened		12 N/mm ²
CFRP		22 N/mm ²
ABS		7 N/mm ²
PC (polycarbonate)		12 N/mm ²
GFRP		21 N/mm ²
PMMA		9 N/mm ²
Polyamide 6.6		1 N/mm ²

Thermal parameters

Temperature resistance		-55°C to +125°C
Tg after curing at room temperature (DSC)		-40,3 °C
Temperature conductivity		0,125 mm ² /s
Thermal conductivity	DIN EN ISO 22007-4	0,22 W/m·K
Heat capacity	DIN EN ISO 22007-4	1,517 J/(g·K)

Electrical parameters

Resistance	DIN EN 62631-3-1	6,26 · 10 ¹⁰ Ω·m
Dielectric strength	DIN EN 60243-1 (20°C)	24 / 30 (*6150) 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

For a flawless adhesive bond, surfaces must be clean and dry (e.g.

clean and degrease with Surface Cleaner). Higher strengths can be achieved by further pre-treatment of the surfaces, such as roughening by blasting or grinding. Some low-energy plastics, especially PTFE and polyolefins 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

RK-7100 can be processed straight from the double cartridge by means of the included static mixer. Dismiss the first 5 cm of the adhesive bead. The adhesive is applied to just one side. The specified pot life refers to a material batch of 10 ml at room temperature. Larger batch quantities will result in faster curing. Higher temperatures also reduce the pot life and curing time. (General rule: every increase by +10 °C above room temperature results in a decrease of the pot life and curing time by

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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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half). Temperatures below +16 °C increase the pot life and curing time significantly. From approx. +5C and below, no reaction takes place.

Storage

Shelf life of 12 months when unopened and stored in normal climate (+23°C and 50 % rel. air humidity).

Scope of delivery

Adhesive | Quadro Mixing Nozzle

Accessories

- 10005237 Dispenser Easy-Mix D 50, 1 PCE
- 10005236 Quadro Mixing Nozzle A, 1 PCE
- 10026925 Helix Mixing Nozzle A, 1 PCE
- 10068261 Dosing Tip, 1 PCE

Conversion table

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

Available sizes

- 10030534 Easy-Mix RK-7100 Structural Acrylic Adhesive, 50 ml, off-white, milky
- 10051232 Easy-Mix RK-7100 Structural Acrylic Adhesive, 50 ml, black

To the product detail page:



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