

RK structural adhesives and Plastic-Bond

Easy-Mix RK-7100



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.

The Dispenser Easy-Mix D 50 is required to use Easy-Mix products in 50 ml cartridges.

Characteristics

Base	methyl methacrylate	
Texture	viscous	
Minimum shelf life	at room temperature	12 mon.

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/cm³	
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/mm²
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 thickn. 1,5mm DIN EN 1465		

Steel 1.0338 sandblasted	23 N/mm²
Stainless steel V2A sandblasted	22 N/mm²
Aluminium sandblasted	20 N/mm²
PVC-rigid roughened	12 N/mm²
CFRP	22 N/mm²
ABS	7 N/mm²
PC (polycarbonate)	12 N/mm²
GFRP	21 N/mm²
PMMA	9 N/mm²
Polyamide 6.6	1 N/mm²

Thermal parameters

Temperature resistance	-55°C to +125°C	
Tg after curing at room temperature (DSC)	-40,3 °C	
Temperature conductivity	0,125 mm²/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.

Application

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 half). Temperatures below +16 °C increase

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

Easy-Mix RK-7100

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

Storage

WEICON structural acrylic 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. Storage in a refrigerated environment increases the shelf life.

Scope of delivery

Adhesive | Quadro Mixing Nozzle B

Accessories

10005237	Dispenser Easy-Mix D 50, 1 PCE
10029793	Quadro Mixing Nozzle B, 1 PCE, grey
10068261	Dosing Tip A Size 0,5 mm, 1 PCE
10101999	WEICON Manual Dispenser, 1 x 1:1 2:1

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, 50 ml, off-white, milky
10051232	Easy-Mix RK-7100, 50 ml, black

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

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

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

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

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

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

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

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

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