

Aluminium Minute Adhesive



Aluminium-filled | gap-filling | fastcuring| high peel and impact strength

WEICON Aluminium Minute Adhesive is an odourless, two-component epoxy adhesive filled with aluminium. It cures fast at room temperature and practically without shrinkage. After curing, the adhesive can be machined (filing, drilling, milling). Aluminium Minute Adhesive is gap-filling and non-dripping (thixotropic) and shows very high tensile, impact and peel strength. The adhesive is particularly suitable for bonding aluminium and other light metals. It can be used for filling cracks and holes on aluminium housings, for example, and for repairing light alloy wheels. In order to achieve optimal adhesion, the bonding surfaces should be dry and free from grease or dirt. Scraping or sanding the surfaces before cleaning additionally improves adhesion.

Characteristics

Base	Epoxy resin, highly filled
Texture	pasty, gap-filling
Colour	aluminium

Processing

Processing temperature	+10°C to +30°C
Curing temperature	+6 °C - +40 °C
Cure temperature	+6 to +40
Mixing ratio by weight	1:1
Viscosity of the mixture at +20 °C	125.000 mPa·s
Density of the mixture	1,23 g/cm ³
Gap bridging up to max.	4 mm

Curing

Pot life	at 20 °C, 10 ml batch	4-5 min.
Handling strength	(35 % strength)	25 min.
Working strength after	(50 % strength)	2 h
Final strength	(100 % strength)	24 h
Shrinkage		0,3 %

Mechanical properties after curing

Tensile strength	DIN EN ISO 527-2	34 MPa
E-modulus (tensile)	DIN EN ISO 527-2	4.000 - 4.500 MPa
Compressive strength	DIN EN ISO 604	8 MPa
Bending strength	DIN EN ISO 178	58 MPa
Hardness (Shore D)	DIN ISO 7619	45

Lap shear strength material thicken. 1,5mm DIN EN 1465

Steel 1.0338 sandblasted	20 N/mm ²
Aluminium sandblasted	19 N/mm ²
PVC-rigid roughened	11 N/mm ²

Thermal parameters

Temperature resistance	-50°C to +120 °C, briefly up to +150 °C
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Electrical parameters

Dielectric strength	DIN EN 60243-1 (20°C)	16 kV/mm
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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).

Processing

WEICON Aluminium Minute Adhesive can be processed straight from the double cartridge. Dismiss the first centimetre of the adhesive bead. Mix product thoroughly. Apply adhesive to the bonding surface quickly. Then join both bonding surfaces immediately.

Storage

When stored in unopened condition in a dry place at constant room temperature of approx. +20°C, WEICON Epoxy Adhesives have a shelf life of at least 18 months. Protect from direct sunlight. In case of non-observance of these storage instructions, the shelf life is reduced to 6 six months. In general, epoxy resins tend to crystallise at temperatures below +5°C. This effect is increased by large temperature fluctuations, e.g. during transport especially in the winter months. This has a negative impact on processing, curing and technical data, can, however, be reversed by heating the product (up to max. +50°C, no open flame). In WEICON Epoxy Adhesives, crystallisation is reduced by the careful choice and combinations of base resins (bisphenol A and F).

Scope of delivery

Adhesive

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) 10 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

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Accessories

- 10653050 Dispenser Easy-Mix D 50, 1 PCE
- 10650001 Quadro Mixing Nozzle A, 1 PCE
- 12955175 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

- 10552024 Aluminium Minute Adhesive, 24 ml, aluminium
- 10552025 Aluminium Minute Adhesive, 1 Set, aluminium

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Spain
phone +34 (0) 914 7997 34
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