

Easy-Mix N 5000



transparent | strong adhesion | short pot life

WEICON Easy-Mix N 5000 is a transparent 2-component epoxy adhesive for bonds where an attractive appearance is important. The adhesive offers strong adhesion. It is liquid, self-levelling and has a pot life of approx. 17 minutes. Easy-Mix N 5000 can be used on numerous materials such as metal, plastic, fibre composites, glass, stone or wood. The adhesive is suitable for use in areas where an attractive appearance is crucial, such as in the production of design objects, furniture manufacturing, trade fair construction, shop fitting and many other industrial and craft applications.

The Dispenser Easy-Mix D 50 or the Manual Dispenser are required for processing Easy-Mix products in 50 ml containers.

Characteristics

Base	Epoxy
Filler	unfilled
Texture	liquid
Colour	colourless, transparent
Minimum shelf life	at room temperature 18 mon.

Processing

Processing temperature	+15 °C to +40 °C
Component temperature	>3 °C above dewpoint
Cure temperature	+6 °C to +40 °C
Relative air humidity	max. 85%
Mixing ratio by volume	1:1
Viscosity of the mixture	at +20 °C 5.000 mPa·s
Density of the mixture	1,1 g/cm ³
Gap bridging up to max.	2 mm

Curing

Pot life	at 20 °C, 10 g batch	17 min.
Handling strength	(35 % strength)	3,5 h
Working strength after	(80 % strength)	7 h
Final strength	(100 % strength)	48 h
Shrinkage		0,97 %

Mechanical properties after curing

- Measured after curing at		24 h RT + 24 h 60 °C
Tensile strength	DIN EN ISO 527-2	50 N/mm ²
Elongation at break (tensile)	DIN EN ISO 527-2	2,4 %
E-modulus (tensile)	DIN EN ISO 527-2	2.000 - 2.300 MPa
Compressive strength	DIN EN ISO 604	10 MPa
Bending strength	DIN EN ISO 178	50 MPa
Hardness (Shore D)	DIN ISO 7619	82 ± 3
Lap shear strength material thickn. 1,5mm DIN EN 1465		
Steel 1.0338 sandblasted		16 N/mm ²
Stainless steel V2A sandblasted		18 N/mm ²
Aluminium sandblasted		11 N/mm ²
Galvanized steel		13 N/mm ²
PVC-rigid roughened		14 N/mm ²

Thermal parameters

Temperature resistance		-50 °C to +100 °C (-58 °F to +212 °F)
Tg after curing at room temperature	(DSC)	52,4 °C
Tg after tempering (at 120°C)	(DSC)	54,2 °C
Temperature conductivity		0,121 mm ² /s
Thermal conductivity	DIN EN ISO 22007-4	0,14 W/m·K
Heat capacity	DIN EN ISO 22007-4	1,531 J/(g·K)

Electrical parameters

Resistance	DIN EN 62631-3-1	1,59·10 ¹² Ω·m
Dielectric strength	DIN EN 60243-1 (20°C)	>30 kV/mm
Magnetic		no

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).

Application

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

Note

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Storage

WEICON epoxy adhesives should be stored in a dry place at room temperature. Unopened containers can be stored at temperatures from +18 °C to +25 °C. Protect from direct sunlight. Failure to observe these storage instructions will reduce the shelf life to 6 months. Epoxy resins generally 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 combination of base resins (bisphenol A and F).

Scope of delivery

Adhesive | Quadro Mixing Nozzle A

Accessories

- 10005237 Dispenser Easy-Mix D 50, 1 PCE
- 10101999 WEICON Manual Dispenser, 1 x 1:1 | 2:1
- 10005236 Quadro Mixing Nozzle A, 1 PCE, blue
- 10068261 Dosing Tip A Size 0,5 mm, 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

- 10016374 Easy-Mix N 5000, 50 ml, colourless, transparent

To the product detail page:



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Chemical resistance after curing* (Excerpt)

1,4-Dioxane	-	Glycol	+
Exhaust fumes	+	Uric acid	-
Adipic acid	-	Impregnating oils	+
aliphatic hydrocarbons	+	Iodides (K, Na etc.)	-
Formic acid >10 % (methanoic acid)	-	Potassium carbonate	+
Ammonia anhydrous 25%	-	Potassium hydroxide 0-20 % (caustic potash)	+
Aniline	-	Milk of lime	+
aromatic hydrocarbons	+	Cresol	-
Barium hydroxide	+	Magnesium hydroxide	+
Benzoic acid	-	Maleic acid (cis-ethylenedicarboxylic acid)	-
Benzyl alcohol	-	Methanol (methyl alcohol) <85 %	o
Benzyl chloride	-	Methylene chloride	-
Boric acid	-	Mineral oil	+
Bromides	-	Naphthalene	+
Butadiene (1,3-)	-	Sodium bicarbonate (sodium hydrogen carbonate)	+
Butyric acid	-	Sodium carbonate (soda)	+
Butyl acetate	o	Sodium chloride (table salt)	+
Butyl alcohol	o	Nitrates	-
Calcium hydroxide (slaked lime)	+	Nitrobenzene	-
Chloroanilines	-	Oils, vegetable and animal	+
Chloroform (trichlormethane)	-	Oxalic acid <25 % (ethanedioic acid)	o
Chlorosulphuric acid (wet and dry)	-	Perchloroethylene	-
Chlorosilanes	-	Kerosene	+
Chlorinated water (swimming pool concentration)	-	Phenol	-
Chromates (K, Na, etc.)	-	Phosphoric acid <50%	+
Chromic acid	-	Phthalic acid, phthalic anhydride	-
Cyanides (K, Na etc.)	-	Nitric acid <5%	-
Cyclohexanone	-	Sulphur dioxide (wet and dry)	-
Diethyl ether	+	Carbon disulphide	-
Mineral oil and mineral oil products	+	Sulphuric acid <5%	+
Acetic acid diluted <5%	o	Soap solution	+
Ethanol <85 % (ethyl alcohol)	o	Turpentine	+
Greases, oils and waxes	+	Carbon tetrachloride (tetrachloromethane)	-
Hydrofluoric acid	-	Tetralin (tetrahydronaphthalene)	-
Tannic acid diluted <7%	o	Trichloroethylene	-
Glycerin (trihydroxipropane)	+	Hydrogen peroxide <30 % (hydrogen superoxide)	o

+ = resistant 0 = for a limited time - = not resistant *The storage of all WEICON Plastic Metal types was carried out at +20°C chemical temperature.

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