

Easy-Mix N 50 Epoxy Adhesive



High adhesive strength | highly viscous | self-levelling | long pot life

WEICON Easy-Mix N 50 can be used on numerous materials such as metal, plastic, fibre-reinforced materials, ceramics, glass, stone and wood. N 50 is suitable for manufacturing processes with assembly and positioning carried out at different times.

For the processing of the Easy-Mix product, the Easy-Mix D 50 dispenser is required.

Characteristics

Base	Epoxy resin, non-filled	
Texture	viscous	
Colour	pale yellow, clear	
Minimum shelf life	at room temperature	18 mon.

Processing

Processing temperature	+10°C to +40°C	
Curing temperature	+10 °C - +40 °C	
Mixing ratio by weight	1:1	
Viscosity of the mixture	at +20 °C	7.500 mPa·s
Density of the mixture	1,07 g/cm³	
Gap bridging up to max.	2 mm	

Curing

Pot life	at 20 °C, 10 ml batch	45 min.
Handling strength	(35 % strength)	120 min.
Working strength after	(50 % strength)	24 h
Final strength	(100 % strength)	72 h
Shrinkage	2,0 %	

Mechanical properties after curing

Tensile strength	DIN EN ISO 527-2	35 MPa
E-modulus (tensile)	DIN EN ISO 527-2	2.000 - 2.500 MPa
Compressive strength	DIN EN ISO 604	90 MPa
Bending strength	DIN EN ISO 178	50 MPa
Hardness (Shore D)	DIN ISO 7619	55
Lap shear strength material thickn. 1,5mm DIN EN 1465		
Steel 1.0338 sandblasted		17 N/mm²
Aluminium sandblasted		16 N/mm²
PVC-rigid roughened		11 N/mm²

Thermal parameters

Temperature resistance	-50°C to +100°C	
Tg after curing at room temperature (DSC)	49 °C	
Tg after tempering (at 120°C) (DSC)	50 °C	
Temperature conductivity	0,133 mm²/s	
Thermal conductivity	DIN EN ISO 22007-4	0,17 W/m·K
Heat capacity	DIN EN ISO 22007-4	1,267 J/(g·K)

Electrical parameters

Resistance	DIN EN 62631-3-1	1,32·10¹³ Ω·m
Dielectric strength	DIN EN 60243-1 (20°C)	>26 kV/mm

Approvals / Guidelines

IMPA Code	812981	
MIL-Spec	complies with	MIL-A-47284A

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.

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.

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.

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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
10005236	Quadro Mixing Nozzle A, 1 PCE, blue
10026925	Helix Mixing Nozzle A, 1 PCE, white
10068261	Dosing Tip, 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

10005231	Easy-Mix N 50 Epoxy Adhesive, 50 ml, pale yellow, clear
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