

**Epoxy Resin Systems** 

## **Epoxy adhesives**

## 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
Processing		
Processing temperature		+10°C to +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/cm <sup>3</sup>
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/mm <sup>2</sup>
Aluminium sandblasted		16 N/mm <sup>2</sup>
PVC-rigid roughened		11 N/mm <sup>2</sup>
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 mm <sup>2</sup> /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	1,32·10 <sup>13</sup> Ω·m
Dielectric strength	DIN EN 60243-1 (20°C)	>26 kV/mm
Approvals / Guidelines		
IMPA Code		812981

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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 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

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 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

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 requested properties are recommended. A claim cannot be derived from them.

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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 | Quadro Mixing Nozzle

#### **Accessories**

10653050 Dispenser Easy-Mix D 50, 1 PCE 10650001 Quadro Mixing Nozzle A, 1 PCE 10650002 Helix Mixing Nozzle A, 1 PCE 12955175 Dosing Tip, 1 PCE

#### **Conversion table**

 $(^{\circ}C \times 1.8) + 32 = ^{\circ}F$  $Nm \times 8.851 = Ib \cdot in$ mm/25.4 = inch $Nm \times 0.738 = lb \cdot ft$ Nm x 141.62 = oz·in  $\mu m/25.4 = mil$  $N \times 0.225 = Ib$ mPa·s = cP

 $N/mm^2 x 145 = psi$  $N/cm \times 0.571 = lb/in$  $MPa \times 145 = psi$  $kV/mm \times 25.4 = V/mil$ 

#### **Available sizes**

10650150 Easy-Mix N 50 Epoxy Adhesive, 50 ml, pale yellow, clear

To the product detail



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