DANLUBE A/S
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Epoxy Resin Systems

Epoxy adhesives

Easy-Mix S 50 Epoxy Adhesive

resistant to high temperatures | extremely strong adhesion | very short pot life

The epoxy adhesive WEICON Easy-Mix S 50 is suitable for fast repair and maintenance work and is perfect for industrial series production with short cycle times.

The adhesive offers high temperature resistance up to +180°C, extremely strong adhesion and high tensile strength. It is viscous, self-levelling, has a very short pot life and cures fast. After curing, the adhesive is impact- and shock-resistant. The 2-component epoxy resin system can be used on many different materials such as metal, plastic or fibre composites.

Easy-Mix S 50 can be used in a wide variety of industrial and trade 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 resin, non-filled
Texture		viscous
Colour after curing		pale yellow, clear
Minimum shelf life	at room temperature	18 mon.

Processing

Processing temperature		+10°C to +30°C
Curing temperature		+6 °C - +40 °C
Mixing ratio by weight		1:1
Viscosity of the mixture	at +20 °C	5.000 mPa·s
Density of the mixture		1,2 g/cm^3
Gap bridging up to max.		2 mm

Curing

Pot life	at 20 °C, 10 ml batch	4-5 min.
Handling strength	(35 % strength)	15 min.
Working strength after	(50 % strength)	20 min.
Final strength	(100 % strength)	24 h
Shrinkage		1,4 %

Mechanical properties after curing

Tensile strength	DIN EN ISO 527-2	52 MPa
E-modulus (tensile)	DIN EN ISO 527-2	2.000 - 2.200 MPa
Compressive strength	DIN EN ISO 604	55 MPa
Bending strength	DIN EN ISO 178	58 MPa
Hardness (Shore D)	DIN ISO 7619	83
Lap shear strength material thickn. 1,5mm DIN EN 1465		
Steel 1.0338 sandblasted		22 N/mm^2
Stainless steel V2A sandblasted		26 N/mm^2
Aluminium sandblasted		11 N/mm^2
Galvanized steel		16 N/mm^2
PVC-rigid roughened		13 N/mm^2

Thermal parameters

Temperature resistance		-50°C to +180°C
Tg after curing at room temperature	(DSC)	44,7 °C
Tg after tempering (at 90°C)	(DSC)	46,1 °C
Temperature conductivity		0,133 mm^2/s
Thermal conductivity	DIN EN ISO 22007-4	0,24 W/m·K
Heat capacity	DIN EN ISO 22007-4	1,482 J/(g·K)

Electrical parameters

Resistance	DIN EN 62631-3-1	$1{,}03 \cdot 10^{11}$ Ω·m
Dielectric strength	DIN EN 60243-1 (20°C)	20 kV/mm

Approvals / Guidelines

ISSA Code	75.530.15

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.

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.

Easy-Mix S 50 Epoxy Adhesive

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, 1 PCE

Conversion table

(°C x 1.8) + 32 = °F
mm/25.4 = inch
µm/25.4 = mil
N x 0.225 = lb
N/mm² x 145 = psi
MPa x 145 = psi

Nm x 8.851 = lb·in
Nm x 0.738 = lb·ft
Nm x 141.62 = oz·in
mPa·s = cP
N/cm x 0.571 = lb/in
kV/mm x 25.4 = V/mil

Available sizes

10005230	Easy-Mix S 50 Epoxy Adhesive, 50 ml

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