

WEICON Easy-Mix HT 250 Epoxy Adhesive



high temperature resistance | high thermal conductivity | long pot life

WEICON Easy-Mix HT 250 is a 2-component adhesive based on epoxy resin with a high temperature resistance up to +200 °C; briefly up to +250 °C. The 2-C epoxy resin system shows particularly high adhesion to metals and fibreglass. Its excellent suitability for special applications is demonstrated by the high thermal conductivity combined with the high temperature resistance. The adhesive keeps over 80 % of its strength even at constantly high temperatures. This enables the bonding of components, which are thermo-coated (powder-coated) after curing. The epoxy resin adhesive has a high resistance to aggressive substances, such as hot and cold water, motor oil and glycol. For the application of the Easy-Mix product, the Dispenser Easy-Mix D 50 is required.

Characteristics

Base	epoxy resin
Texture	viscous
Colour	light grey

Processing

Processing temperature	+10 °C to +40 °C
Curing temperature	+10 °C bis +50 °C
Mixing ratio by volume	2:1
Viscosity of the mixture	at +20 °C 13.000 mPa·s
Density of the mixture	2,1 g/cm ³
Gap bridging up to max.	4 mm

Curing

Pot life	at 20 °C, 10 ml batch	150 min.
Working strength after	(50 % strength)	8 h
Final strength	(100 % strength)	24 (0,5 Std. 80°C) h

Mechanical properties after curing

Tensile strength	DIN EN ISO 527-2	50 MPa
Elongation at break (tensile)	DIN EN ISO 527-2	2.9 %
Hardness (Shore D)	DIN ISO 7619	> 90
Lap shear strength material thicken. 1,5mm DIN EN 1465		
Steel 1.0338 sandblasted		20 N/mm ²
Aluminium sandblasted		15 N/mm ²
ABS		6 N/mm ²
PC (polycarbonate)		4 N/mm ²
GFRP		10 N/mm ²

Thermal parameters

Temperature resistance		-50 bis 200, briefly up to +250 °C
Tg after curing at room temperature (DSC)		~ +65 °C
Tg after tempering (80°C)		+130
Thermal expansion coefficient	ISO 11359	5·10 ⁻⁶ ·K ⁻¹ 1/m·K
Thermal conductivity		1,4 W/m·K

Electrical parameters

Dielectric strength	DIN EN 60243-1 (20°C)	>24 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

For a flawless adhesive bond, surfaces must be clean and dry (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 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

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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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).

Accessories

- 10650006 Helix Mixing Nozzle, 1 PCE
- 10653050 Dispenser Easy-Mix D 50, 1 PCE

Conversion table

$(^{\circ}\text{C} \times 1,8) + 32 = ^{\circ}\text{F}$	$\text{Nm} \times 8,851 = \text{lb}\cdot\text{in}$
$\text{mm}/25,4 = \text{inch}$	$\text{Nm} \times 0,738 = \text{lb}\cdot\text{ft}$
$\mu\text{m}/25,4 = \text{mil}$	$\times 141,62 = \text{oz}\cdot\text{in}$
$\text{N} \times 0,225 = \text{lb}$	$\text{mPa}\cdot\text{s} = \text{cP}$
$\text{N}/\text{mm}^2 \times 145 = \text{psi}$	$\text{N}/\text{cm} \times 0,571 = \text{lb}/\text{in}$
$\text{MPa} \times 145 = \text{psi}$	$\text{kV}/\text{mm} \times 25,4 = \text{V}/\text{mil}$

Available sizes:

- 10650855 WEICON Easy-Mix HT 250 Epoxy Adhesive, 50 ml, light grey

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