

WEICON Easy-Mix HT 250 Epoxy Adhesive



Very high temperature resistance up to +200 °C (+392 °F), briefly up to +250 °C (+482 °F) | high adhesion to metals | high thermal conductivity and high resistance to aggressive media and powder coatings

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	
Minimum shelf life	at room temperature	18 mon.

Processing

Processing temperature	+10 °C to +40 °C	
Curing temperature	+10 °C - +50 °C	
Mixing ratio by volume	2:1	
Viscosity of the mixture	at +20 °C	38.000 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 (30 min. 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 (at 80°C) (DSC)	+130 °C	
Thermal expansion coefficient	ISO 11359	5·10 ⁻⁶ ~5K ⁻¹ 1/m·K
Thermal conductivity	1,4 W/m·K	

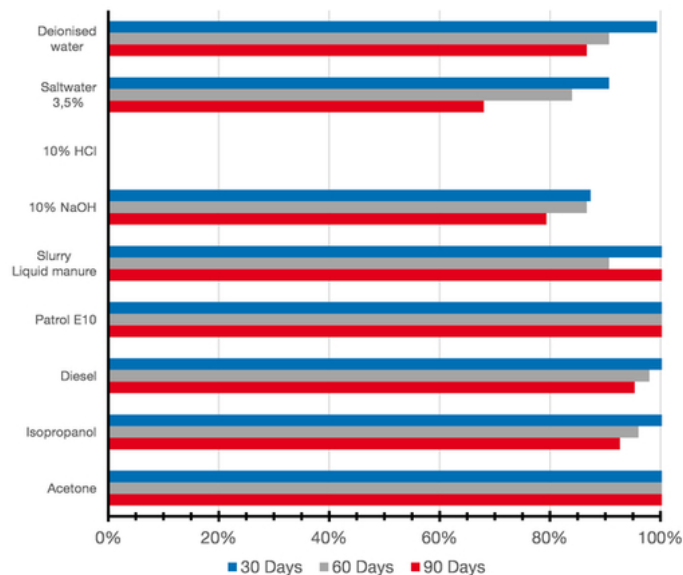
Electrical parameters

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.

Tensile strength after storage



Surface Pre-Treatment

For a flawless adhesive bond, surfaces must be clean and dry (e.g. cleaning and degreasing with WEICON Surface Cleaner).

Note

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Epoxy Resin Systems

Epoxy adhesives

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.

Curing

In order to obtain a permanently high temperature resistance, it should be annealed by heating at 80 °C for 30 minutes after 24 hours.

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

Accessories

- 10005237 Dispenser Easy-Mix D 50, 1 PCE
- 10030395 Helix Mixing Nozzle B, 1 PCE, white
- 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

- 10056568 WEICON Easy-Mix HT 250 Epoxy Adhesive, 50 ml, light grey

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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