

# Easy-Mix HT 180 Epoxy Adhesive



**high-temperature resistant**  
**steady**  
**shock and impact resistant**

WEICON Easy-Mix HT 180 is a 2-component adhesive on epoxy resin basis and has a high temperature resistance of up to +180°C; short term to +230°C.

The adhesive is highly viscous and stable which makes it also suitable for vertical applications. It is shock and impact resistant, has a long pot life, cures at room temperature, can be processed mechanically and his special fillers allow a constant bonding line. The adhesive is particularly suitable for the bonding of composite materials and metal and can be spot-welded while curing.

Easy-Mix HT 180 can furthermore be utilised for plastics, ceramic, glass, stone or wood and is suitable for adhesions where larger tolerances have to be bridged. Due to special fillers it is possible to achieve a constant and reliable bonding line of at least 0.20 - 0.25 mm.

The high temperature resistance permits the bonding of components which require powder-coating after complete curing.

## Technical Data

Base	Epoxy resin mineral-filled
Texture	paste consistency, crack-filler
Colour	black
Mixing ratio by weight (Resin / Hardener)	2:1
Density of the mixture	1,1 g/cm <sup>3</sup>
Viscosity of the mixture at 20°C (+68°F)	pasty
Adhesive gap bridging up to max.	4 mm
Processing temperature	+10 to +40 °C
Curing temperature	+10 to +50 °C
Pot life at 20°C (+68°F) for 10ml material	60 min.
Handling strength (35% strength) after	120 min.
Capable of bearing mechanical loads (50% strength) after	4 h

### Note

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Final strength (100%) after	24 h
Medium strength of the pure epoxy resin according to DIN EN 1465	
Pressure	52 Mpa
Pull	27 Mpa
Bending	46 Mpa
Tg after curing at room temperature	54,4 °C
Tg after tempering (at 120 °C)	44,7 °C
E-Modul	2.300 - 2.700 Mpa
Shore hardness D	80
Medium shear strength according to DIN EN 1465 at	
Galvanized steel	8 N/mm <sup>2</sup>
Steel sand blasted	23 N/mm <sup>2</sup>
Alu sandblasted	13 N/mm <sup>2</sup>
V2A polished	24 N/mm <sup>2</sup>
PVC hard-roughened	11 N/mm <sup>2</sup>
CFK	22 N/mm <sup>2</sup>
Linear shrinkage	0,3 %
Temperature resistance	-50 to 180 briefly to +230 °C
Thermal diffusivity (23 °C)	0,172 mm <sup>2</sup> /s
Thermal conductivity	0,26 W/m·K
Specific heat capacity	1,335 J/(g·K)
Resistivity	2,48 · 10 <sup>11</sup> Ωm

## Surface pre-treatment

To ensure a perfect bond, the surfaces to be joined must be clean and dry (e.g., clean and degrease using WEICON Surface Cleaner).

## Processing

WEICON Easy-Mix products can be processed directly from the double cartridges with the help of the included static mixer. Reject the first 5 cm of the dosed bead. Apply adhesive to only one of the surfaces to be bonded. The pot life given is for a material quantity of 10 ml at room temperature. If larger quantities are used, the curing time will be faster. Similarly, higher ambient temperatures shorten the cure times (as a rule of thumb, every +10°C increase above room temperature will halve working and curing time). Temperatures below +16°C will extend working and curing times considerably, while below about +5°C, no reaction will take place at all.

## Storage

When unopened and stored at a constant room temperature of approx. +20°C in a dry place, WEICON HT 180 has a shelf life of at least 24 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

WEICON GmbH & Co. KG  
(Headquarters)  
Germany  
phone +49 (0) 251 9322 0  
info@weicon.de  
www.weicon.de

WEICON Middle East L.L.C.  
United Arab Emirates  
phone +971 4 880 25 05  
info@weicon.ae  
www.weicon.ae

WEICON Inc.  
Canada  
phone +1 877 620 8889  
info@weicon.ca  
www.weicon.ca

WEICON Kimya Sanayi Tic. Ltd. Şti.  
Turkey  
phone +90 (0) 212 465 33 65  
info@weicon.com.tr  
www.weicon.com.tr

WEICON Romania SRL  
Romania  
phone +40 (0) 3 65 730 763  
office@weicon.com  
www.weicon.com.ro

WEICON SA (Pty) Ltd  
South Africa  
phone +27 (0) 21 709 0088  
info@weicon.co.za  
www.weicon.co.za

WEICON South East Asia Pte Ltd  
Singapore  
phone (+65) 6710 7671  
info@weicon.com.sg  
www.weicon.com.sg

WEICON Czech Republic s.r.o.  
Czech Republic  
phone +42 (0) 417 533 013  
info@weicon.cz  
www.weicon.cz

WEICON Ibérica S.L.  
Spain  
phone +34 (0) 914 7997 34  
info@weicon.es  
www.weicon.es

WEICON Italia S.r.l.  
Italy  
phone (+39) 0102924871  
info@weicon.it  
www.weicon.it

## Technical Datasheet

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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).

### Safety and health

When using WEICON products, the physical, safety technical, toxicological and ecological data and regulations in our EC safety data sheets ([www.weicon.com](http://www.weicon.com)) must be observed.

### Available sizes:

10650850 Easy-Mix HT 180 Epoxy Adhesive 50 ml

### Accessories:

10650006 Mixing Nozzles,  
10653050 Dispenser D 50, 50 ml

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info@weicon.it  
www.weicon.it