

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

Composition	Epoxy resin mineral-filled
Composition	paste consistency, crack-filler
Colour	black
Mixing ratio by weight (Resin / Hardener)	2:1
Density of the mixture	1,1 g/cm ³
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

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.

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 Tg (°C)
Tg after tempering (at 120 °C)	44,7 Tg (°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 ²
Steel sand blasted	23 N/mm ²
Alu sandblasted	13 N/mm ²
V2A polished	24 N/mm ²
PVC hard-roughened	11 N/mm ²
CFK	22 N/mm ²
Linear shrinkage	0,3 %
Temperature resistance	-50 to 180 briefly to +230 °C
Thermal diffusivity (23°C)	0,172 mm ² /s
Thermal conductivity	0,26 W/m·K
Specific heat capacity	1,335 J/(g·K)
Resistivity	2,48 · 10 ¹¹ 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 kept at a constant room temperature of about +20°C and unopened in dry conditions, WEICON Epoxy Adhesives will keep for at least 18 months. Avoid direct sunlight. If these storage instructions are disregarded, the storage life will be reduced to 6 months. Epoxy resins are fundamentally liable to crystallise at temperatures of less than +5°C. This effect is accentuated by wide variations in temperature such as can frequently occur during transport in winter. This also has a negative effect on working

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Technical Datasheet

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qualities, curing and technical details, although these effects can be reversed by warming up to a maximum of +50°C (no naked flame). In the case of WEICON Epoxy Adhesives, careful selection and combination of the base resins (bisphenol A and F) ensures a reduction of crystallisation.

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) must be observed.

Available sizes:

10650850 Easy-Mix HT 180 Epoxy Adhesive 50 ml

Accessories:

10650006 Mixing Nozzles, Helix
10653050 Dispenser D 50, 50 ml

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