



## 2K Epoxy Panel Bond

Two-component structural epoxy adhesive showing high chemical and heat resistance, for bonding steel, SMC, aluminium, composite materials and many other substrates



### Features & Benefits

- Based on epoxy resins – for improved stiffness and light weight design
- Bond line thickness is controlled by 0.25mm glass beads – no need to manually control the minimum bond line thickness
- Spot weldable before full cure – no need to wait 24 hours before welding
- Sandable and paintable
- Withstands automotive e-coat, powder prime and paint oven temperatures up to 230 °C – very resistant to heat and chemicals
- Unique anti-corrosion formulation – ideal for hybrid assemblies of metal with different substrates
- High energy absorption and very good crash performance – **approved by TÜV Rheinland**
- Universal cartridge – can be used with any standard 1K gun

P/N	Product	S/C	Packaging
86496	2K Epoxy Panel Bond	2KEPB	195 ml cartridge + 1 nozzle
86511	Nozzles	2KEPBN	Bag of 3 nozzles

### Application

2K Epoxy Panel Bond provides versatility in use across a broad range of assembly requirements, from body panels, such as roofs and front fenders, to closures, such as doors, trunks, and hoods.

2K Epoxy Panel Bond offers excellent adhesion on a wide variety of substrates such as CFRP (carbon fibre reinforced plastic), SMC (sheet moulding composite), FRP (fibreglass reinforced plastic), ABS, aluminium, galvanized steel, cold rolled steel, etc.

For hybrid assemblies of two different metals, 2K Epoxy Panel Bond distinguishes itself with excellent corrosion protection and impact toughness.

2K Epoxy Panel Bond facilitates a high degree of relative motion in the joint, e.g. in the particular case of dissimilar materials bonded to each other, showing different thermal expansion coefficients.

### Instructions

1. Clean surfaces with KENT Acrysol or Soft Surface Cleaner and allow to dry.
2. Sand the surfaces lightly and degrease.
3. Before attaching the nozzle, balance the cartridge by extruding just enough product of part A and part B.
4. Attach the nozzle. Extrude and dispose of the first 2 or 3 cm of the product. Apply KENT 2K Epoxy Panel Bond as required on both surfaces to be bonded. The bond line thickness is controlled by 0,25 mm glass beads contained in the adhesive. Open time: 60 minutes \* / Working time: 90 minutes\*. During working time the already joined parts can still be re-positioned. Do not take the bonded assembly apart.
5. Clamp the panel for at least 4 hours \*. (Cure time can be accelerated (max. 150 °C).
6. Allow 24 hours \* to achieve full strength.

\* 23 °C / 55% R.H.



## Technical Information

<b>Base:</b>	Epoxy-based adhesive
<b>Consistency:</b>	Medium viscosity paste (mixed product)
<b>Colour:</b>	Black (mixed product)
<b>Shelf Life:</b>	24 months
<b>Customs Tariff Code:</b>	3506 99 00 (2K Epoxy Panel Bond) 3923 50 90 00 (Nozzles)
<b>VOC:</b>	0 g/l

<b>Cure mechanism:</b>	Room temperature or heat accelerated cure (max 150 °C)	<b>Tensile strength :</b>	30 MPa (23 °C, ASTM D-638)
<b>Mixing ratio:</b>	2:1	<b>Elongation at break:</b>	3 %
<b>Specific gravity:</b>	1.10 g/ml (mixed product)	<b>E-modulus:</b>	4550 Mpa (23 °C , ASTM D-638)
<b>Open time:</b>	60 min (23 °C)	<b>Lap shear strength :</b>	
<b>Working time:</b>	90 min (23 °C)	<b>Substrate</b>	<b>MPa</b>
<b>Handling/Clamp time:</b>	4 hours (23 °C)	Cold Rolled Steel (1,5 mm)	27,8
<b>Full cure:</b>	24 hours (23 °C)	Cold Rolled Steel (0,8 mm)	23,7
<b>Hardness:</b>	Shore D 80	Hot Dipped Galvanized Steel (0,7 mm)	12,6
<b>Shrinkage:</b>	< 2 % (ISO 3521 )	Alloyed Galvanized Steel (0,7 mm)	18,5
<b>Application temp:</b>	+16 °C to 30 °C (<16 °C with IR)	6111 Aluminium Alloy (0,9 mm)	11,3
<b>Temp resistance :</b>	-40 °C to +100 °C (230 °C for 30 minutes)	5052 Aluminium Alloy (0,6 mm)	12,4
		ABS	3,0
		SMC	8,8



SDS available on [www.kenteurope.com](http://www.kenteurope.com)

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