kLine Epoxy Fix 2K

is a 2K adhesive that was developed primarily for the high-strength bonding of metals and fiber composite materials. The extremely strong adhesive bond resists the usual vibrations and torsion in vehicles and is very crash-resistant thanks to its impact-resistant properties.

Characteristics

- Excellent adhesion to metallic materials such as sheet metal, stainless steel, or aluminum as well as to fiber composite materials such as SMC, RTM, CFRP
- Structural bonding, sealing and repairing with one product
- Impact modified with excellent crash resistance
- Very good long-term load capacity, as well as chemical and thermal resistance (e.g. automotive KTL process)
- Accelerated curing possible with heat
- Can be welded through (even unhardened!)
- Very good corrosion protection

Application

kLine Epoxy Fix 2K was developed for easy repairs of automotive parts such as fenders, roofs or doors. The adhesive contributes to the rigidity of the vehicle and can be used both as a pure adhesive as well as in the adhesive riveting or adhesive welding process.
The adhesive layer thickness is controlled by the 0.25mm glass beads included and prevents excessive squashing. The application from cartridges is simple and possible. It is recommended to choose an applicator gun with a high transmission ratio (e.g. 25:1)
kLine Epoxy Fix 2K was designed for easy dispensing with both manual and pneumatic applicators. To ensure consistent dispensing, we recommend leveling the pistons by inserting the opened cartridge into the gun and squeezing until material begins to flow from both cartridge chambers before attaching the mixer. After attaching the mixer (we recommend only using the mixing tips included in the package) and inserting the cartridge into the dispensing tool, press the applicator trigger at a constant and consistent speed to force both components through the mixer. It is recommended to discard the first 25 to 50 mm of the applied material, as mixing errors are still possible here, which can lead to curing problems. After about half of the open time, the material in the mixer becomes very difficult or impossible to dose. Either allow the material to flow through the mixer for short periods when adhesive is not required or replace the mixer before restarting the application.
After applying the glue, put the parts together (within the open time) and fix them.

After application

After use, leave the mixer on the cartridge until **kLine Epoxy Fix 2K** is to be used again. The remaining adhesive will last for several weeks if stored properly. To use **kLine Epoxy Fix 2K** again, remove the used static mixer and put on a new mixer.

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Notes on bonding

material	Pretreatment
Sheet metal, stainless steel	Cleaning, sanding (e.g. 36 grit)
aluminum	Cleaning, roughening (e.g. sanding fleece)
Fiber composite (SMC, CFK, RTM)	Cleaning, sanding (e.g. 120 grit)

We recommend **kLine IPA Clean as a suitable cleaner** .

Curing

kLine Epoxy Fix 2K cures at room temperature or when heat is added (up to 150°C).

The guidelines for accelerated curing in the oven:

Curing temperature in °C	Curing time in minutes
23	240
33	120
43	60
53	30
63	15

The times are only a guideline and depend on the oven and the heat transfer of the component.

Storage & Shelf Life

Store unopened containers indoors in a dry place at 15 - 32 °C, then the shelf life is 24 months after the production date

Packaging

kLine Epoxy Fix 2K is available as a 50 ml cartridge side by side & in a 195 ml coax cartridge in black, 2 mixers are included.

Technical data

Base:	Reactive epoxy mixture (mixing ratio 2:1)
Color:	Black
Density (20°C):	1.09 g/cm³
Viscosity:	suitable for vertical applications
Temperature resistant up to:	max 230°C (cured adhesive)
Processing time:	60 min
Handling strength :	4 h (acceleration with heat possible)
Fully resilient after:	24 hours
Optimal layer thickness:	0.25 mm (due to the included glass beads)
Shore D hardness:	80 according to EN ISO 868
Tensile strength:	30 mPas according to DIN 53 504
Modulus of elasticity:	2550 mPas according to DIN 53 504
Elongation at break:	3% according to DIN 53 504
Glass transition temperature:	-49°C according to ASTM E-1640

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