



1-part epoxy adhesives

1k adhesive based on epoxy resins offer the highest performance as for mechanical, thermal, humidity, solvents and critical environmental conditions resistance. Designed to be used on metals, ferrites, ceramic and engineering plastics to replace mechanical fixing and welding, they do not require mixing. They cure quickly thanks to the energy provided in the form of heat, by IR or convection/radiation ovens, or by electromagnetic induction when in contact with ferrous materials.

BENEFITS:

- ▶ Excellent mechanical resistance, even at high temperature.
- ▶ Excellent resistance to chemicals and humidity.
- ▶ Single component, easy dispensing either manually or with dosing systems.
- ▶ Cure fast by heating the parts in convection/radiation ovens or faster by electromagnetic induction.
- ▶ Cure at high temperature (typically from +90° C to +180° C).
- ▶ Free flowing or not while heated to provide engineers with fast and reliable solutions.

SUBSTRATES:

- ▶ Metals
- ▶ Ceramic
- ▶ Engineering plastics
- ▶ Composites



DIRECTIONS FOR USE

- ▶ It is recommended to apply the adhesive on clean and dry surfaces. Clean the parts with Loxeal Cleaner 10 or other suitable solvent.
- ▶ Surface treatments, suitable to the substrate, such as mechanical treatment (abrasion or sandblasting) or chemical treatment on metals improve the bonding durability and its mechanical strength.
- ▶ Dose the adhesive from the cartridge using the provided nozzle.
- ▶ Parts to be bonded shall be assembled immediately after product application, applying sufficient pressure to ensure spreading of the adhesive on the entire bonding area.
- ▶ Keep the parts mechanically fixed to prevent any moving until full polymerization.
- ▶ Cure the joint with heat, setting temperature and time, according to the parts material and the heating method, in compliance with the product specification.
- ▶ Excess of product can be removed with Acetone or any other solvent compatible with the substrates. Application tools and dosing systems shall be cleaned before the product is hardened.
- ▶ Cured product can be removed mechanically only.

GRADE	COLOR	VISCOSITY (+25°C Pa.s)	CURING TIME (*)	SHEAR STRENGTH (ISO 4587) (N/mm²)	PEEL STRENGTH (ISO 4578) (N/25 mm)	TEMPERATURE RANGE (°C)	DESCRIPTION
4500	GREY	800-3800 THIXO	30 min. @ +150°C	20 - 30	80 - 120	-40 +180	High viscosity, it does not flow while curing. Ideal for bonding different materials, such as metals, ferrites, ceramic and composites. Provides excellent resistance to shocks, peel and shear also at high temperature.
4580	GREY	150-250 THIXO	45 min. @ +150°C	18 - 25	80 - 120	-40 +180	Free flowing when heated for curing. Thermally conductive, suitable for applications that require heat transmission. Excellent adhesion on different materials, such as metals, ferrites, ceramic and composites. Ideal to replace mechanical fixing and welding. High shocks, peel and shear resistance.
4620	WHITE	15-30	30 min. @ +150°C	18 - 25	-	-40 +180	Self-levelling, excellent adhesion on different materials, such as metals, ferrites, ceramic and composites. Ideal to replace mechanical fixing and welding. High shocks, peel and shear resistance.
4680	IVORY	60-100	15 min. @ +150°C	20 - 25	-	-40 +180	Free flowing when heated for curing. Suitable for applications that require heat transmission. Excellent adhesion on different materials, such as metals, ferrites, ceramic and composites. Ideal to replace mechanical fixing and welding. High shocks, peel and shear resistance.
4690	BLACK	200-300 THIXO	45 min. @ +150°C	18 - 25	80 - 150	-40 +180	High viscosity, it does not flow while curing. Ideal for bonding different materials, such as metals, ferrites, ceramic and composites. Provides excellent resistance to shocks, peel and shear also at high temperature. Good dielectric strength and chemical resistance.
4700	AMBER	8-12	90 min. @ +90°C	15 - 25	-	-40 +180	Self-levelling, designed to fix and seal externally pre-assembled parts or to encapsulate small parts. Thanks to its high adhesion strength is ideal to replace mechanical fixing and welding.
4780	BLACK	400-600 THIXO	30 min. @ +150°C	15 - 25	-	-40 +180	Thermally conductive, suitable for applications that require heat transmission, for example in thermohydraulic applications. Excellent adhesion on different materials, such as metals, ferrites, ceramic and composites. High shocks, peel and shear resistance.
EM4699	GREY	100-200 THIXO	30 min. @ +150°C	40 - 48	190 - 210	-40 +200	High toughness, thixotropic, designed for bonding different metal substrates. It provides maximum resistance to shocks, to peel and shear loads. Excellent performance with applications at high temperature and with harsh chemicals. Excellent adhesion also on ceramic and composites.

(*) Curing time varies as function of temperature, way of use and thermal inertia of the parts.