



2k polyurethane adhesives

2K polyurethane resins are designed to bond a wide variety of materials, mostly many plastics, glass and carbon fiber composites, some rubbers such as NBR, wood and metals. Loxeal range offers several grades with different curing time, from very fast to slow ones that allow parts repositioning or wide surfaces bonding.

BENEFITS:

- ◀ Provide a flexible film with good resistance to impact, static stresses and thermal shocks.
- ◀ The bonded parts have a good resistance to water, oils and hydrocarbons.
- ◀ Excellent resistant to high temperature up to +100° C, with peaks at +120° C.

SUBSTRATES:

- ◀ Composites
- ◀ Carbon fiber
- ◀ Metals
- ◀ Wood
- ◀ Glass
- ◀ Plastics
- ◀ NBR and other rubbers



DIRECTIONS FOR USE

- ◀ It is recommended to apply the adhesive on clean and dried 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.
- ◀ Resin and hardener have to be mechanically mixed before the application. Mix the 2 parts in order to get a homogeneous color, paying attention to the mixing ratio by weight or volume given on the technical data sheet.
- ◀ Avoid to mix big quantities of product because the heat produced by chemical reaction may be dangerous and cause loss of product.
- ◀ For automatic mixing, set the static mixer on the dual cartridge and apply the product, completely discarding the first 3/4 cm of the extruded product.
- ◀ Assemble the parts immediately after product application and keep them mechanically fixed until cure is completed. Do not provide any mechanical stress until full polymerization is achieved.
- ◀ 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.

HOW TO CALCULATE THE VOLUME OF ADHESIVE REQUIRED

ADHESIVE VOLUME (ml) = BONDING LINE THICKNESS (cm) x SURFACE TO BOND (cm²)

Example:

1ml covers 100 cm² surface with 0.1mm high adhesive layer

1l covers 1 m² surface with 0.1mm high adhesive layer

Theoretical quantity of adhesive (in weight) (g) = density (g/ml) x volume (ml)

Usage estimator for packaging

		50 ml	200 ml	400 ml
Bead diameter	1,2 mm	40 m	140 m	280 m
	2 mm	13 m	52 m	104 m
	3 mm	6 m	24 m	48 m
	6 mm	1,5 m	6 m	12 m

The listed values are intended as indicative only.

GRADE	COLOR	VISCOSITY (+25°C mPa.s)	HANDLING TIME (+25°C) (MINUTES)	FUNCTIONAL CURING TIME (+25°C)	SHEAR STRENGTH (ISO 4587) (N/mm ²)	DESCRIPTION
33-21	BLACK	4000-8000 THIXO (A) 3000-6000 THIXO (B)	1 - 2	10 - 15 h	15 - 20	Fast curing. High toughness and resistance on plastics, composites, wood and some rubbers. Paintable and sandable after full cure. Resistant to water and humidity.
33-28	BLACK	4000-8000 THIXO (A) 3000-6000 THIXO (B)	15 - 20	24 - 48 h	10 - 15	Fixture time allows parts repositioning. High toughness and resistant on plastics, composites, wood and some rubbers. Paintable and sandable after full cure. Resistant to water and humidity.

