

## LOXEAL 4428

### Description

Loxéal 4428 is a two-components, fast-curing, toughened epoxy resin especially developed for composites bonding even in combination with metals and some plastics. Thanks to its thixotropy it is very easy to apply and it provides strong bonding with excellent impact, vibration and temperature resistance.

### Typical Physical properties

Part:	A	B
Chemical Composition:	epoxy resin	amine
Color:	white	black
Viscosity (+25°C - Pa.s)	100 thixo	150 thixo
Mixing ratio vol.:	2 : 1	
Specific weight (g/ml):	1,13	1,10
Max. gap fill:	3,0 mm	
Shelf life (at +25°C) :	2 years in original unopened packaging	

### Typical Curing Properties at +25°C

Pot life:	13 minutes**
Fixture time:	35 minutes**
Working strength:	1 hour
At +60°C:	15 minutes
Full cure:	48 hours
At +60°C:	1 hour
Colour after mixing:	dark grey
Shear strength (after 48h at +25°C ISO 4587)	
Steel	25 N/mm <sup>2</sup>
FRP Glass/Polyester	9 N/mm <sup>2</sup>
FRP Glass/Epoxy	24 N/mm <sup>2</sup>
FRP Carbon/Epoxy	31 N/mm <sup>2</sup>
CFRP/Aluminum	25 N/mm <sup>2</sup>
CFRP/Steel	23 N/mm <sup>2</sup>

Peel resistance (Aluminum): 250 N/25mm  
Temperature resistance: -40°C /+120°C

\*\*= time detected on a 3 g total mass mixture A+B

### Storage

Keep the product in a cool and dry room at no more than +25°C. To avoid contaminations do not refill containers with used product. For further information on applications, storage and handling contact Loxéal Technical Service.

### Directions for use

- **Surface preparation**  
For best results we recommend to scratch the surfaces with a tool and then to degrease and clean with Loxéal Cleaner 10 or another suitable solvent and let dry for few seconds.
- **Mixing**  
The resin and the hardener need to be mechanically mixed before use in the ratio of weight and/or volume in compliance with technical specifications until a homogeneous colour is reached. Products are available in dual cartridges with static mixers (separately provided) allowing a direct and correct product application on the substrates. When using the static mixer, completely discard the first 3-4cm of the extruded product. Avoid to mix big quantities of product because heating produced by chemical reaction may be dangerous and cause loss of product.
- **Pot life**  
The pot life of the mixed product may vary from few minutes to some hours at room temperature according to the resin and the hardener used. Higher temperature reduces the pot life. Apply product at temperature higher than +15°C.
- **Assembly**  
Parts to be bonded shall be assembled immediately after product application and kept close until full polymerization without providing any mechanical stress.
- **Cleaning**  
Excess of product can be removed with Acetone or any other solvent based cleaner compatible with the substrates to bond. Application tools and dosing systems shall be cleaned before the product is hardened. Cured product can be removed only mechanically.

### Safety, handling and disposal

Consult Material Safety Data Sheet before use.

**Note**

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