

Technical Data Sheet

Preliminary

LOXEAL METALOX A+B

Description

Loxeal METALOX is a solvent-free two-part, fast curing and thixotropic, epoxy resin, with excellent resistance to water and many chemical agents. It is specifically designed for repairing and/or bonding metal substrates as well as a variety of other substrates such as concrete, wood etc. It works as an adhesive filler, suitable to repair metal castings, pipe-works or flanges and also for body repair in automotive field.

The fast cure of Loxeal METALOX enables machining or sanding the bonded/repaired components within few hours after the application, even outdoor. After polymerization the adhesive is sandable and paintable. Loxeal METALOX can be cured at +60°C for 1 hour to speed up the cure and achieve high resistance.

Typical physical properties

	<u>Part A</u>	<u>Part B</u>
Composition:	epoxy resin	amine
Colour:	metallic grey	black
Viscosity, rheometer plate-plate (25°C – mPa s)		
Shear rate 40 s ⁻¹ :	40.000	14.000
Shear rate 0.3 s ⁻¹ :	190.000	54.000
Specific weight (+25°C - g/ml):	1,4	1,5
Mixing ratio (in volume):	1:1	

Shelf life: 24 months @+5°C ≤ T ≤ +25°C
 in original unopened packaging.

Typical curing properties at +25°C

Pot life: 5 minutes**
 Handling Strength: 15 minutes

**Time detected on a 10g total mass mixture A+B

Typical performances of the cured adhesive

Sandable after 5 hours @ +25°C

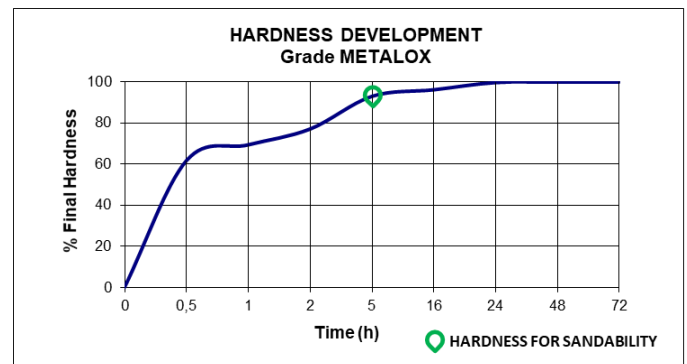
Lap Shear strength (ISO 4587) after 24 hours at +25°C

CR4 Mild steel (gritblasted): 21 N/mm²
 Stainless Steel (acetone cleaned): 18 N/mm²

Compression Strength (ASTM D695): 60 N/mm²
 Hardness Shore D (ISO 868): 65

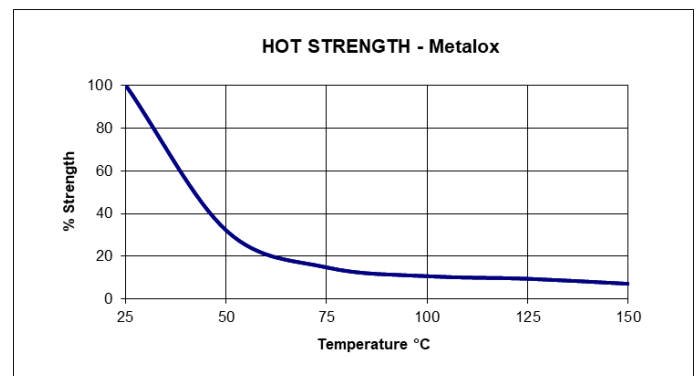
Hardness development

The graph below shows the hardness development of the product (%) vs. time. After 5 hours @RT after mix, 90% of final hardness is achieved and the product is sandable.



Temperature resistance

The graph below shows the mechanical strength of the product (%) vs. temperature. Specimen steel - ISO 4587



Storage

Keep 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 Loxeal Technical Service

Safety, handling and disposal

Consult Material Safety Data Sheet before use.

Directions for use

- Surface preparation

For best results we recommend to scratch the surfaces with a tool and then to degrease and clean with Loxeal Cleaner 10 or Acetone and let dry for a 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 color is reached. Products are available in dual cartridges with static mixers (separately provided) allowing a direct and correct product application on the substrates to bond, completely discarding the first 3/5 cm of the extruded product. Avoid excess of product blend because heating produced by chemical reaction may cause risk and loss of product.

- Pot life

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 and big quantities reduce 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.

Note

The data contained herein, obtained in Loxeal laboratories, are given for information only; if specifics are required, please contact Loxeal Technical Department. Loxeal ensures abiding quality of supplied products according to its own specifics. Loxeal cannot assume responsibility for the results obtained by others which methods are not under Loxeal control. It is user's responsibility to determine suitability for user's purpose of any product mentioned herein. Loxeal disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Loxeal products. Loxeal specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.