

preliminary
LOXEAL 4401

Description

Loxéal 4401 is a two component epoxy resin, toughened, semi-flexible, resistant to high temperatures, with good adhesion on various substrates such as wood, metal, ceramics and different types of plastics and composites.
Mix ratio 2:1 by volume. Provides a tenacious adhesion, with high peel, cut and shear strength up to temperatures of +120 ° C with peaks of +140 ° C.

Physical properties

Composition:	epoxy resin and hardener	
Part:	A	B
Colour:	white	black
Mixing Ratio (by volume):	2	1
Viscosity +25°C (Pa s):	80 - 360	180 - 400
Specific weight (g/ml):	1,16	1,10
Gap to fill:	0,1 - 5,0 mm	
Shelf life (at +25°C) :	1 year in unopened containers	

Curing properties

(on 3g A+B total mass)

Working time :	10 - 12 minutes
Functional cure time:	24- 36 hours
Full cure (at +25°C):	4 - 7 days*
Shear strength (at +25°C on steel ISO 4587):	20 - 30 N/mm ²
Peel strength (Al):	150 - 300 N/25mm
Hardness (Shore D):	65 - 70
Temperature range:	-40/+120°C (peaks up to +140°C)

*= typical alternate cure at +80°C/1h

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 Loxéal Technical Service

Safety and handling

Consult Material Safety Data Sheet before use.

Directions for use

1. Surfaces preparation

To obtain good results we recommend to scratch the surfaces with a tool and then to degrease and clean with Loxéal Cleaner 10 or Acetone.

2. Mixing

The resin and the hardener need to be mixed before use in the ratio of weight and/or volume in compliance with technical specifications. Products are available in dual cartridges with static mixers that allow a direct and correct product application on the surfaces to bond. We recommend not to use the initial quantity of product extruded from the static mixer. Avoid excess of product blend because it may cause heating by chemical reaction.

3. Pot life

The pot life of the mixed product is affected by ambient temperature and it may vary from few minutes to some hours. High temperature reduces the pot life. We recommend to apply product at temperature above + 20°C.

4. Assembly

Parts to bond shall be assembled immediately after product application and clamped until polymerisation is reached, avoiding mechanical stress.

5. Cleaning

Excess of product can be removed with Acetone or any other solvent based cleaner compatible with the surfaces to bond. Application tools and dispensers shall be cleaned before the product is hardened. Hardened product can be only removed mechanically.

Note

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