

DELOMONOPOX® AD066

heat-curing adhesive

Base

- epoxy resin, construction adhesive
- one-component, heat-curing, unfilled

Use

- for the fixing and bonding of metal, temperature-resistant plastic and rubber
- for fast and high-strength connections with good thermal and chemical resistance
- the cured product is normally used in a temperature range of -40 °C to +180 °C; depending on the application, other limits may be more reasonable
- successfully tested according to UL 94 HB
- compliant with RoHS directive 2011/65/EU

Processing

- the adhesive is supplied ready for use, in case of cooled storage, it must be ensured that the container is conditioned to room temperature before use
- the containers are conditioned at room temperature (max. +25 °C); the conditioning time is approx. 0.5 h for containers up to 10 ml, approx. 1 h for containers up to 50 ml, approx. 3 h for containers up to 310 ml and approx. 9 h for 5 l containers ; additional heat addition is not allowed
- the adhesive can be processed well from the original container or with DELO dispensing units
- the surfaces to be bonded must be dry as well as free of dust, grease and other contaminations
- use DELOTHEN cleaners for the cleaning of bonding surfaces
- adhesion to the components can be improved by sand blasting, grinding or pickling

Curing

- curing proceeds at temperatures between +100 and +150 °C
- increased temperatures shorten the curing process, lower temperatures extend it, and can change the properties of the cured product
- the heating time of the components must be added to the actual curing time
- to heat the components, increased temperatures can be used, as well
- for curing, the inside of the adhesive layer must have the required temperature
- depending on the adhesive amount used, exothermic reaction heat is developed which can lead to overheating; in this case, the curing temperature must be reduced accordingly
- fast induction curing is possible

Technical data

Color

beige

Density [g/cm³]

1.2

DELO Standard 13

at room temperature (approx. 23 °C)

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Viscosity [mPas] at 23 °C, rheometer, shear rate 10 1/s	20000
Processing time 5 l hobcock at room temperature (max. 25 °C)	2 weeks
Curing time until final strength [min] at +130 °C in an air convection oven	20
Tensile shear strength Al/Al [MPa] DELO Standard 39, sand-blasted component thickness: 6 mm after 40 min at +130 °C	35
Tensile shear strength Al/Al [MPa] DIN EN 1465, sand-blasted component thickness: 1.6 mm after 35 min at +130 °C	18
Compression shear strength Al/Al [MPa] DELO Standard 5 curing: 30 min at +150 °C	60
Compression shear strength VA/VA [MPa] DELO Standard 5 curing: 30 min at +150 °C	74
Compression shear strength PA/PA [MPa] DELO Standard 5 curing: 60 min at +100 °C	18
Compression shear strength PBT/PBT [MPa] DELO Standard 5 curing: 60 min at +100 °C	21
Compression shear strength FR4/FR4 [MPa] DELO Standard 5 curing: 60 min at +100 °C	62
Tensile strength [MPa] according to DIN EN ISO 527 layer thickness: 2 mm after 30 min at +130 °C	45
Elongation at tear [%] according to DIN EN ISO 527 layer thickness: 2 mm after 30 min at +130 °C	1.4
Young's modulus [MPa] according to DIN EN ISO 527 layer thickness: 2 mm after 30 min at +130 °C	2900
Shore hardness D according to DIN EN ISO 868 after 30 min at +130 °C	83
Glass transition temperature [°C] rheometer	132
Decomposition temperature [°C] DELO Standard 36	278
Coefficient of linear expansion [ppm/K] DELO Standard 26 TMA in a temperature range of +40 °C to +90 °C	66

Coefficient of linear expansion [ppm/K] 189
 DELO Standard 26
 TMA
 in a temperature range of + 110 °C to +180 °C

Shrinkage [%] 2
 DELO Standard 13

Water absorption [weight %] 0.2
 according to DIN EN ISO 62
 after 30 min at +130 °C

Storage life at room temperature (max. 25 °C) 4 weeks
 in unopened original container up to 310 ml

Storage life at 0 °C to +10 °C 6 months
 in unopened original container up to 310 ml

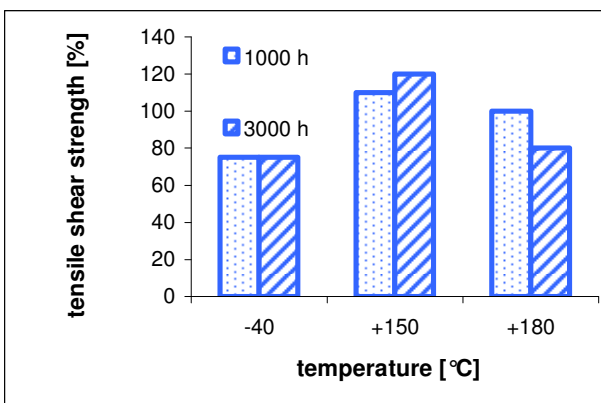
Storage life at 0 °C to +10 °C 5 weeks
 5 l hobcock in unopened original container

Performance under chemical influence
 compression shear strength after storage for 1,000 h
 based on initial value at room temperature
 measured at room temperature (approx. 23 °C)
 according to DELO Standard 5

Chemical medium	Compression/shear strength Al/Al [%]
acetone	70
ethanol denatured	86
ethanol 70 % denatured	57
ATF gear oil	74
petrol	85
diesel fuel	69
engine oil 10W40	74
demineralised water / glykol mixture 50:50	56
demineralised water	53

Performance under temperature influence
 Tensile shear strength Al/Al based on initial value at room temperature
 DIN EN 1465, sand-blasted, component thickness: 1.6 mm

tensile shear strength Alu/Alu after temperature storage
 regarding initial strength at room temperature
 measured at room temperature
 by the criteria of DIN EN 1465



Instructions and advice

General

The data and information provided are based on tests performed under laboratory conditions. Reliable information about the behavior of the product under practical conditions and its suitability for a specific purpose cannot be concluded from this. It is the customer's responsibility to test the suitability of the product for the intended purpose by considering all specific requirements. Type and physical and chemical properties of the materials to be processed with the product, as well as all actual influences occurring during transport, storage, processing and use, may cause deviations in the behavior of the product compared to its behavior under laboratory conditions. The data and information provided are therefore no guarantee for specific product properties or the suitability of the product for the intended purpose.

Nothing contained herein shall be construed to indicate the non-existence of any relevant patents or to constitute a permission, encouragement or recommendation to practice any development covered by any patents, without permission of the owner of this patent.

All products provided by DELO are subject to DELOs' General Terms of Business. Verbal side agreements are not permitted. This document is subject to change.

Instructions for use

The instructions for use of DELOMONOPOX are available on: www.DELO.de. We will be pleased to send them to you on demand.

Occupational health and safety

see material safety data sheet

Specification

The properties in italics are part of the specification. Ranges with clear limits are defined for them and others, where applicable. In the course of the QA test, each batch is tested for these properties and the maintenance of the limits is ensured. The measuring methods used can deviate from those specified in the data sheet. Details can be found in the QA test report.