

DELO® MONOPOX SJ2735

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
- compliant with RoHS directive 2015/863/EU
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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. +23 °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 +90 °C 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

Technical data

Color

cured in a layer thickness of approx. 0.1 mm

colorless transparent

Density [g/cm³]

DELO Standard 13
at room temperature (approx. 23 °C)

1.1

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Viscosity [mPas] rheometer, PP20, gap 200 µm, shear rate 10 1/s, at room temperature (23 °C)	50000
Processing time at room temperature (23°C / 50% r.h.)	1 week
Curing time with air convection oven [min] at +130 °C adhesive temperature	20
Curing time with air convection oven [h] at +90 °C adhesive temperature	2
Tensile shear strength Al/Al [MPa] by the criteria of DIN EN 1465, sand-blasted, component thickness 1.6 mm, gap 0.1 mm curing: 20 min at +130 °C	19
Compression shear strength Al/Al [MPa] DELO Standard 5 curing: 20 min at +130 °C after 24 h at room temperature (approx. +23 °C)	50
Compression shear strength PA6/PA6 [MPa] DELO Standard 5 curing: 20 min at +130 °C after 24 h at room temperature (approx. +23 °C)	28
Compression shear strength PBT/PBT [MPa] DELO Standard 5 curing: 20 min at +130 °C after 24 h at room temperature (approx. +23 °C)	20
Tensile strength [MPa] according to DIN EN ISO 527 layer thickness: 2 mm curing: 20 min at +130 °C after 24 h at room temperature (approx. +23 °C)	70
Elongation at tear [%] according to DIN EN ISO 527 layer thickness: 2 mm curing: 20 min at +130 °C after 24 h at room temperature (approx. +23 °C)	4
Young's modulus [MPa] according to DIN EN ISO 527 layer thickness: 2 mm curing: 20 min at +130 °C after 24 h at room temperature (approx. +23 °C)	3000
Shore hardness D according to DIN EN ISO 868 after 20 min at +130 °C	80
Glass transition temperature [°C] DMTA, 3 Point Bending Test 2nd measurement run	97
Coefficient of linear expansion [ppm/K] DELO Standard 26, TMA below T _g	75
Coefficient of linear expansion [ppm/K] DELO Standard 26, TMA above T _g	200
Volume shrinkage [%] DELO Standard 13 at room temperature (approx. 23 °C)	1.7

Water absorption [%] 0.2
according to DIN EN ISO 62
Curing: 20 min at +130 °C
after 24 h at room temperature (approx. +23°C)

Storage life at -18 °C 9 months
in unopened original container

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 a product for the intended purpose by considering all specific requirements and by applying standards the customer deems suitable (e. g. DIN 2304-1). Type, 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. All data provided are typical average values or uniquely determined parameters measured under laboratory conditions. The data and information provided are therefore no guarantee for specific product properties or the suitability of the product for a specific 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 DELO's General Terms of Business. Verbal ancillary agreements are deemed not to exist.

Instructions for use

The instructions for use of DELO MONOPOX 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.