

DELO® MONOPOX LT2238

heat-curing adhesive, very low temperature curing at +60 °C

Base

- modified epoxy resin
- one-component, heat-curing, solvent-free, filled

Use

- due to fast curing at low temperatures, the product is especially suitable for the use on temperature-sensitive substrates
- the cured product is normally used in a temperature range of -40 °C to +150 °C; depending on the application, other limits may be more reasonable
- compliant with RoHS directive 2015/863/EU

Processing

- the adhesive is supplied ready for use; in case refrigerated 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, 1 h for containers up to 30 ml; additional heat addition is not allowed
- the surfaces to be bonded must be dry as well as free of dust, grease and other contaminations
- dispensing valves and product-bearing elements must be carefully cleaned directly after adhesive use

Curing

- curing proceeds, e. g., at temperatures between +60 and +150 °C at the adhesive
- increased temperatures shorten the curing process, lower temperatures extend it, and can change the properties of the cured product
- the minimal curing temperature is +60 °C
- the actual curing times at the respective temperatures are dependent on the heating time of the components, the heating time of the components must be added to the curing time of the adhesive
- the curing times of the adhesive at the curing temperatures recommended can be drawn from the technical data

Technical data

<i>Color</i>	black
<i>Viscosity [mPas]</i> at 23 °C, rheometer, shear rate 10 1/s	21000
<i>Curing time with air convection oven [min]</i> at +60 °C	30

Processing time [h] at room temperature (23 °C / 50% r.h.)	72
Compression shear strength Al/Al [MPa] DELO standard 5 curing: 30 min at +80 °C after 24 h room temperature	30
Compression shear strength ABS/ABS [MPa] DELO standard 5 curing: 30 min at +80 °C after 24 h room temperature	42
Compression shear strength FR4/FR4 [MPa] DELO standard 5 curing: 30 min at +80 °C after 24 h room temperature	35
Compression shear strength LCP/LCP (E130i) [MPa] DELO Standard 5 curing: 30 min at +80 °C after 24 h room temperature	19
Compression shear strength Ni/Ni [MPa] DELO standard 5 Curing: 30 min at +80 °C after 24 h roomtemperature	30
<i>compression shear strength stainless steel / stainless steel</i> [MPa] DELO standard 5 curing: 30 min at +80 °C after 24 h room temperature	30
Compression shear strength PMMA/PMMA [MPa] DELO standard 5 curing: 30 min at +80 °C after 24 h room temperature	36
Tensile strength [MPa] according to DIN EN ISO 527 layer thickness: 2 mm curing: 30 min at +80 °C after 24 h room temperature	56
Elongation at tear [%] according to DIN EN ISO 527 layer thickness: 2 mm curing: 30 min at +80 °C after 24 h room temperature	2
Young's modulus [MPa] DMTA, 3 point bending, at +23 °C	5600
Shore hardness D according to DIN EN ISO 868 curable layer thickness: 4 mm curing: 30 min at +80 °C after 24 h roomtemperature	84
<i>Glass transition temperature</i> [°C] DMTA, 3 point bending, at +23 °C	56
Coefficient of linear expansion [ppm/K] DELO Standard 26, TMA below Tg	46
Coefficient of linear expansion [ppm/K] DELO Standard 26, TMA above Tg	161

Storage life at -18 °C
in unopened original container

6 months

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.

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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.