

DELO DUALBOND® LT2208

UV / light and heat curing adhesive, very low temperature curing +60 °C

Base

dual-curing one-component epoxy

Use

- especially for a fast fixing of components and curing at low temperature
- 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

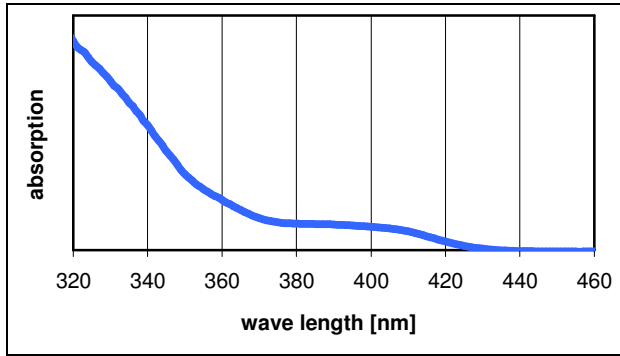
Processing

- 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

- fixation with light in a wavelength range of 320 nm - 420 nm. The time for fixing depends on the layer thickness and the intensity. DELOLUX LED curing lamps are especially suitable. Curing by heat in a temperature range of +60 °C to +150 °C is mandatory
- the heating time of the components must be added to the actual curing time
- the time between fixing and heat curing should not be longer than 1 hour at room temperature (max. 25 °C)
- 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

Absorption spectrum



Technical data

<i>Color</i>	yellowish
Density [g/cm ³]	1.3
<i>Viscosity</i> [mPas] at 23 °C, rheometer, PP20, gap 100µm, shear rate 10 1/s	1500
Processing time [h] at room temperature (23 °C / 50% r.h.)	72
Fixing time by light [s] LED 400nm, intensity: 200 mW/cm ² DELOLUXcontrol	1 - 5
Curing time with air convection oven [min] at +80 °C	30
Curing time with air convection oven [min] at +60 °C	45
<i>Compression shear strength FR4/FR4</i> [MPa] DELO-standard 5 curing: 90 min at 60 °C after 24 h room temperature	25
<i>Compression shear strength LCP/LCP (E130i)</i> [MPa] DELO Standard 5 curing: 90 min at 60 °C after 24 h room temperature	16
<i>Compression shear strength PC/PC</i> [MPa] DELO standard 5 curing in 90 min at 60 °C	21
<i>Compression shear strength PMMA/PMMA</i> [MPa] DELO Standard 5 curing: 90 min at 60 °C after 24 h room temperature	13
<i>Compression shear strength ABS/ABS</i> [MPa] DELO Standard 5 curing: 90 min at 60 °C after 24 h room temperature	30
<i>Tensile strength</i> [MPa] according to DIN EN ISO 527 layer thickness: 2 mm curing: 90 min at +60 °C after 24 h room temperature	22

Elongation at tear [%] according to DIN EN ISO 527 layer thickness: 2 mm curing: 90 min at +60 °C after 24 h room temperature	70
Young's modulus [MPa] according to DIN EN ISO 527 layer thickness: 2 mm curing: 90 min at +60 °C after 24 h room temperature	180
Dielectric constant according to DIN 53483-2:1970-03, 100kHz	4.39
Shore hardness D according to DIN EN ISO 868 layer thickness: 4 mm curing: 90 min at +60 °C after 24 h room temperature	69
Glass transition temperature [°C] DMTA, curing 30 min at + 80 °C	32
Coefficient of linear expansion [ppm/K] DELO standard 26 TMA in a temperature range of -50 °C to +19 °C	57
Coefficient of linear expansion [ppm/K] DELO standard 26 TMA in a temperature range of +38 °C to +160 °C	185
Shrinkage [vol. %] DELO standard 13 curing: 90 min at +60 °C	5
Water absorption [weight %] according to DIN EN ISO 62 after 90 min at +60 °C	0.2
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.

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.