

DELO DUALBOND® LT3368

modified polycarbamin acid derivat | 1C | **light-fixable / heat-curing**

free of solvents | filled, can be fixed quickly, low transmission, light-blocking, thixotropic | light-fixable, low-temperature-curing

Special features of product

- halogen-free according to IEC 61249-2-21
- compliant with RoHS Directive 2015/863/EU
- compliant with limits of VOC content in adhesive acc. to GB33372-2020

Function

- electronic adhesive

Typical area of use

- -40 - 130 °C
- active alignment for camera modules

Curing

Suitable lamp types LED 365 nm, LED 400 nm

Typical light fixation time

*intensity 200 mW/cm²
LED 365 nm* 1 - 5 s

Typical curing time

*at +80 °C
in air convection oven* 30 min

Processing

Conditioning time (typical)

*when stored in cold conditions
in containers up to 10 ml* 0.5 h

*when stored in cold conditions
in containers up to 50 ml* 1 h

Processing time

in standard climate +23 °C / 50 % r. h. 48 h

Storage life in unopened original container

at -18 °C 6 month(s)

Technical properties

Color in cured condition in 1 mm layer thickness gray

Transparency in cured condition in 1 mm layer thickness opaque

Parameters

Density 1.27 g/cm³
Based on DIN 66137-2 | liquid

Viscosity 164000 mPa·s
liquid | Rheometer | Shear rate: 10 1/s | Gap: 500 µm

Compression shear strength 12 MPa
*DELO Standard 5 | **AI** | **AI** | 100 °C | 20 min*

Compression shear strength 17 MPa
*DELO Standard 5 | **FR4** | **FR4** | 80 °C | 30 min*

Compression shear strength 15 MPa
*DELO Standard 5 | **PC** | **PC** | 80 °C | 30 min*

Tensile strength 10 MPa
Based on DIN EN ISO 527 | 365 nm | 200 mW/cm² | 1 s | Plus | 80 °C | 30 min

Elongation at tear 5 %
Based on DIN EN ISO 527 | 365 nm | 200 mW/cm² | 1 s | Plus | 80 °C | 30 min

Young's modulus 370 MPa
Based on DIN EN ISO 527 | 365 nm | 200 mW/cm² | 1 s | Plus | 80 °C | 30 min

Shore hardness D 63
Based on DIN EN ISO 868 | 80 °C | 30 min

Glass transition temperature 50 °C
DELO Standard 26 | TMA | 80 °C | 30 min

Coefficient of linear expansion 60 ppm/K
DELO Standard 26 | TMA | Evaluation T: -40 °C - 20 °C | 80 °C | 30 min

Coefficient of linear expansion 173 ppm/K
DELO Standard 26 | TMA | Evaluation T: 85 °C - 145 °C | 80 °C | 30 min

Shrinkage <i>DELO Standard 13 80 °C 30 min</i>	2.3	vol. %
Water absorption <i>Based on DIN EN ISO 62 365 nm 200 mW/cm² 1 s Plus 80 °C 30 min Type of storage: Media Medium: Distilled water Storage temperature: at approx. +23 °C Duration: 24 h</i>	0.24	wt. %
Extractable fluoride ions	< 5	ppm
Extractable chloride ions	< 5	ppm
Extractable bromide ions	< 5	ppm

Converting table

°F = (°C x 1.8) + 32	1 MPa = 145.04 psi
1 inch = 25.4 mm	1 GPa = 145.04 ksi
1 mil = 25.4 µm	1 cP = 1 mPa·s
1 oz = 28.3495 g	1 N = 0.225 lb

General curing and processing information

The curing time stated in the technical data was determined in the laboratory. It can vary depending on the adhesive quantity and component geometry and is therefore a reference value. The heating time of the components must be added to the actual curing time. It depends on component size and type of heat input. The specified curing temperature must be reached directly at the adhesive. Increasing or decreasing the curing temperature and / or irradiation intensity and / or irradiation time shortens or prolongs the curing time and can lead to changed physical properties. Only a small part of the bonding should be light-fixed as the maximum build-up of adhesion is achieved by pure heat curing. The period of time between pre-fixation and heat curing should not exceed 1 h at room temperature (approx. +23 °C / 50 % r.h.). The adhesive shows postcuring behavior. After heat curing at low temperatures and a short curing time, a certain level of strength is already achieved. The adhesive postcures at room temperature and achieves a level of strength corresponding to the curing temperature after approx. 24 hours. Depending on the adhesive quantity used, exothermic reaction heat is generated which can lead to overheating. In this case, a lower curing temperature is to be selected. All curing or light fixation parameters depend on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer. Optional pre-fixation is performed with light. Heat curing is mandatory. Values measured after 24 h at approx. 23 °C / 50 % r.h., unless otherwise specified.

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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Instructions for use

You can find further details in the instructions for use.

The instructions for use are available on www.DELO-adhesives.com.

We will be pleased to send them to you on demand.

Occupational health and safety

See material safety data sheet.

Specification

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