DELO DUALBOND® LT2266

modified epoxy resin | 1C | light-fixable / heat-curing

free of solvents, free of antimony | fast light fixation possible, heat curing mandatory, light-blocking, flow-resistant, thixotropic

Special features of product

- compliant with RoHS Directive 2015/863/EU
- compliant with limits of VOC content in adhesive acc. to GB33372-2020
- tested for biocompatibility and meets the requirements according to DIN EN ISO 10993-5: test for cytotoxicity

Function

- electronic adhesive

Typical area of use

- -40 - 150 °C
- active alignment for camera modules
- chip bonding
- glass/metal bondings
- mixed bondings with plastics
- fast component fixation
- sensor bonding
- bonding of temperature-sensitive substrates
- bonding of opaque components

Curing

Suitable lamp types	LED 365 nm, LED 400 nm	
Typical light fixation time		
intensity 1000 mW/cm² *LED 365 nm*	1	s
Typical curing time		
at +60 °C *light-fixed / in air convection oven*	90	min
at +60 °C *in air convection oven*	120	min
at +80 °C *light-fixed / in air convection oven*	30	min
at +80 °C *in air convection oven*	60	min

Processing

Typical adhesive application	jetting, needle dispensing	
Conditioning time (typical)		
in containers up to 50 ml	1	h
Processing time		
in standard climate +23 °C / 50 % r. h. *in containers up to 50 ml*	3	d
Storage life in unopened original container		
at -25 °C to -15 °C	6	month(s)

Technical properties

Color in cured condition in 1 mm layer thickness	black	
Transparency in cured condition in 1 mm layer thickness	opaque	
Filler information	quartz	
Filler particle size d95	7	µm

Parameters

Density *by the criteria of DIN 66137-2 | liquid*	1.32	g/cm³
Viscosity *liquid | Rheometer | Shear rate: 10 1/s | Gap: 500 µm*	53000	mPa·s
Thixotropy index *liquid | Rheometer | Gap: 500 µm*	7.5	
Compression shear strength *DELO Standard 5 | **Al** | **Al** | 365 nm | 200 mW/cm² | 5 s | Plus | 80 °C | 60 min*	24	MPa
Compression shear strength *DELO Standard 5 | **LCP MR25** | **LCP MR25** | 365 nm | 200 mW/cm² | 5 s | Plus | 80 °C | 60 min*	14	MPa
Compression shear strength *DELO Standard 5 | **Ni** | **Ni** | 365 nm | 200 mW/cm² | 5 s | Plus | 80 °C | 60 min*	20	MPa

Compression shear strength *DELO Standard 5	**PA11T**	**PA11T**	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	21	MPa
Compression shear strength *DELO Standard 5	**PC**	**PC**	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	30	MPa
Tensile strength *by the criteria of DIN EN ISO 527	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	20	MPa
Elongation at tear *by the criteria of DIN EN ISO 527	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	110	%
Young's modulus *DMTA	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	1100	MPa
Shore hardness D *by the criteria of DIN EN ISO 868	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	67	
Glass transition temperature *DMTA	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	35	°C
Coefficient of linear expansion *DELO Standard 26	TMA	Evaluation T: -40 °C - 5 °C	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	60	ppm/K
Coefficient of linear expansion *DELO Standard 26	TMA	Evaluation T: 50 °C - 160 °C	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	162	ppm/K
Water absorption *by the criteria of DIN EN ISO 62	Layer thickness: 4 mm	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	0.12	wt. %
Decomposition temperature *DELO Standard 36	365 nm	200 mW/cm²	5 s	Plus	80 °C	60 min*	274	°C
Extractable ions *Bromide*	< 10	ppm
Extractable ions *Chloride*	< 10	ppm
Extractable ions *Fluoride*	< 10	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.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 prefixation 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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