DELO DUALBOND® GE4906

modified acrylate | 1C | UV- / VIS- / humidity-curing

free of solvents | dual-curing, tension-equalizing, flowable, fast fixation, unfilled

Special features of product

- compliant with RoHS Directive 2015/863/EU
- compliant with limits of VOC content in adhesive acc. to GB33372-2020

Function

- encapsulant / potting compound

Typical area of use

- -40 - 150 °C
- pin sealing
- pin potting

Curing

Suitable lamp types	LED 365 nm, LED 400 nm	
Typical irradiation time		
intensity 200 mW/cm² *LED 400 nm*	7	s
intensity 1000 mW/cm² *LED 400 nm*	4	s

Processing

Conditioning time (typical)		
when stored in cold conditions *in containers up to 50 ml*	30	min
when stored in cold conditions *in containers up to 1,000 ml*	4	h
Processing time		
at rt approx. +23 °C	30	d
Storage life in unopened original container		
up to <= 600 ml *at 0 °C to +10 °C*	6	month(s)

Technical properties

Color in uncured condition	yellowish
Transparency	transparent
Color in cured condition in 0.1 mm layer thickness	yellowish
Color in cured condition in 1 mm layer thickness	yellowish
Fluorescence	fluorescent

Parameters

Density *DELO Standard 13 | liquid*	1.01	g/cm³
Viscosity *by the criteria of DIN 53019 | liquid | Rheometer | Shear rate: 1 1/s | Gap: 500 µm*	2100	mPa·s
Viscosity *by the criteria of DIN 53019 | liquid | Rheometer | Shear rate: 2 1/s | Gap: 500 µm*	2000	mPa·s
Viscosity *by the criteria of DIN 53019 | liquid | Rheometer | Shear rate: 10 1/s | Gap: 500 µm*	2100	mPa·s
Thixotropy index *by the criteria of DIN 53019 | liquid | Rheometer | Gap: 500 µm*	1.0	
Maximum curable layer thickness *DELO Standard 20 | 400 nm | 200 mW/cm² | 60 s*	4	mm
Compression shear strength *DELO Standard 5 | **Glass** | **Al** | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 72 h*	1	MPa
Compression shear strength *DELO Standard 5 | **Glass** | **Stainless steel** | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 72 h*	2	MPa
Compression shear strength *DELO Standard 5 | **Glass** | **PA6** | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 72 h*	2	MPa
Compression shear strength *DELO Standard 5 | **Glass** | **PBT** | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 72 h*	1	MPa

Compression shear strength *DELO Standard 5	**Glass**	**PPA**	*400 nm	200 mW/cm²	60 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	2	MPa
Compression shear strength *DELO Standard 5	**PC**	**PC**	*400 nm	200 mW/cm²	60 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	6	MPa
Tensile strength *by the criteria of DIN EN ISO 527	400 nm	200 mW/cm²	90 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	4	MPa
Elongation at tear *by the criteria of DIN EN ISO 527	400 nm	200 mW/cm²	90 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	540	%
Young's modulus *DMTA	400 nm	200 mW/cm²	60 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	<10	MPa
Shore hardness A *by the criteria of DIN EN ISO 868	400 nm	200 mW/cm²	90 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	24	
Glass transition temperature *DMTA	400 nm	200 mW/cm²	60 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	10	°C
Coefficient of linear expansion *DELO Standard 26	TMA	Evaluation T: -40 °C - 150 °C	400 nm	200 mW/cm²	60 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	240	ppm/K
Shrinkage *DELO Standard 13	400 nm	200 mW/cm²	90 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	5.6	vol. %
Water absorption *by the criteria of DIN EN ISO 62	Layer thickness: 4 mm	400 nm	200 mW/cm²	90 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h	Type of storage: Media	Medium: Distilled water	Storage temperature: at approx. +23 °C*	1.1	wt. %
Comparative Tracking Index *by the criteria of DIN EN 60112	400 nm	200 mW/cm²	60 s	Plus	at approx. +23 °C	Rel. air humidity: 50 %	72 h*	600	

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.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.All curing or light fixation parameters depend on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer.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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