

DELO DUALBOND® GE4910

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

free of solvents | dual-curing, unfilled

Special features of product

- compliant with RoHS Directive 2015/863/EU
- compliant with limits of VOC content in adhesive acc. to GB33372-2020
- passes ANSI/UL 94 HB Flame Test

Function

- encapsulant / potting compound

Typical area of use

- -40 - 120 °C

Curing

Suitable lamp types LED 365 nm, LED 400 nm

Typical irradiation time

<i>intensity 200 mW/cm²</i>	4	s
<i>LED 400 nm</i>		
<i>layer thickness 100 µm</i>		
<i>intensity 1,000 mW/cm²</i>	3	s
<i>LED 400 nm</i>		
<i>layer thickness 100 µm</i>		

Processing

Conditioning time (typical)

<i>when stored in cold conditions in containers up to 50 ml</i>	1	h
<i>when stored in cold conditions in containers up to 1,000 ml</i>	6	h

Processing time

<i>at rt approx. +23 °C</i>	30	d
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Storage life in unopened original container

<i>at 0 °C to +10 °C</i>	6	month(s)
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Technical properties

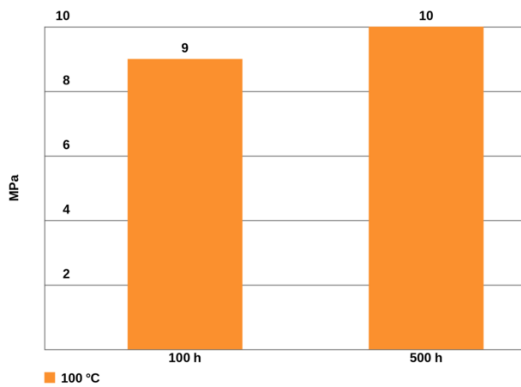
Transparency	transparent
Color in cured condition in 0.1 mm layer thickness	colorless

Parameters

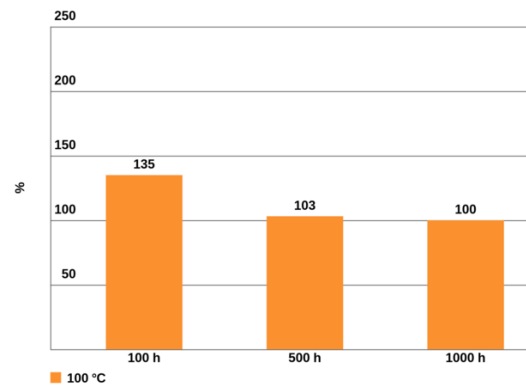
Density <i>by the criteria of DIN 66137-2 liquid</i>	1.01	g/cm ³
Viscosity <i>by the criteria of DIN 53019 liquid Rheometer Shear rate: 10 1/s Gap: 200 µm</i>	2100	mPa·s
Compression shear strength <i>DELO Standard 05 Glass AI 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	5	MPa
Compression shear strength <i>DELO Standard 05 Glass FR4 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	6	MPa
Compression shear strength <i>DELO Standard 05 Glass Glass 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	11	MPa
Compression shear strength <i>DELO Standard 05 Glass PA 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	6	MPa
Compression shear strength <i>DELO Standard 05 Glass PBT 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	5	MPa
Compression shear strength <i>DELO Standard 05 PC PC 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	9	MPa
Tensile strength <i>by the criteria of DIN EN ISO 527 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h</i>	11	MPa
Elongation at tear <i>by the criteria of DIN EN ISO 527 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h</i>	350	%
Young's modulus <i>DMTA 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h</i>	100	MPa

Shore hardness A <i>by the criteria of DIN EN ISO 868 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h</i>	73	
Glass transition temperature <i>DMTA 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h</i>	70	°C
Coefficient of linear expansion <i>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 % 168 h</i>	270	ppm/K
Shrinkage <i>DELO Standard 13 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h</i>	5.4	vol. %
Water absorption <i>by the criteria of DIN EN ISO 62 Layer thickness: 4 mm 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h Type of storage: Media Medium: Distilled water Duration: 24 h</i>	1.6	wt. %
Comparative Tracking Index <i>by the criteria of DIN EN 60112 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 168 h</i>	CTI 600	

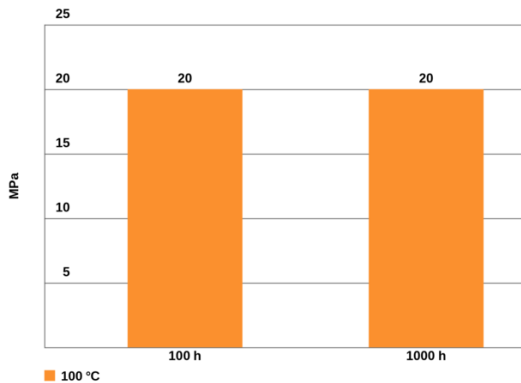
Tensile strength after temperature storage, by the criteria of DIN EN ISO 527



Elongation at tear after temperature storage, by the criteria of DIN EN ISO 527



Compression shear strength after temperature storage
Substrates: Glas/ Glas, by the criteria of DELO-Norm 5



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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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

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

Nothing contained in this Technical Datasheet shall be interpreted as any express warranty or guarantee. This Technical Datasheet is for reference only and does not constitute a product specification. Please ask our responsible Sales Engineer for the applicable product specification which includes defined ranges. DELO is neither liable for any values and content of this Technical Datasheet nor for oral or written recommendations regarding the use, unless otherwise agreed in writing. This limitation of liability is not applicable for damages resulting from intent, gross negligence or culpable breach of cardinal obligations, nor shall it apply in case of death or personal injury or in case of liability under any applicable compulsory law.

CONTACT