

DELO DUALBOND® GE4931

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

free of solvents | dual-curing, tension-equalizing, tough-hard, unfilled

Special features of product

Function

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

Typical area of use

- -40 120 °C
- glass/metal bondings
- mixed bondings with plastics

Curing

Suitable lamp types	LED 365 nm, LED 400 nm	
Typical irradiation time		
intensity 200 mW/cm² LED 400 nm layer thickness 100 μm	4	S
intensity 1000 mW/cm² LED 400 nm layer thickness 100 μm	2	S
Processing		
Conditioning time (typical)		
when stored in cold conditions in containers up to 50 ml	1	h
when stored in cold conditions in containers up to 600 ml	5	h
Processing time		
in standard climate +23 °C / 50 % r. h. in containers up to 600 ml	30	d



Storage I	life in	unopened	original	container
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up to <= 600 ml at 0 °C to +25 °C	6	month(s)
Technical properties		
Color in uncured condition	yellowish	
Color in cured condition in 0.1 mm layer thickness	colorless	
Transparency in cured condition in 0.1 mm layer thickness	transparent	
Fluorescence	blue fluorescent	
Parameters		
Density DELO Standard 13 liquid	1.02	g/cm³
Viscosity liquid Rheometer Shear rate: 2 1/s Gap: 500 μm	7000	mPa·s
Viscosity liquid Rheometer Shear rate: 10 1/s Gap: 500 μm	7000	mPa·s
Viscosity liquid Rheometer Shear rate: 1000 1/s Gap: 500 μm	4500	mPa·s
Compression shear strength DELO Standard 5 Glass AI 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	10	MPa
Compression shear strength DELO Standard 5 Glass Glass 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	13	MPa
Compression shear strength DELO Standard 5 Glass PC-ABS 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	13	MPa
Compression shear strength DELO Standard 5 Glass PPA 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	9	MPa
Compression shear strength DELO Standard 5 PC PC 400 nm 200 mW/cm² 30 s Plus at approx. +23 °C Rel. air humidity 50 % 72 h	20	MPa



Tensile strength by the criteria of DIN EN ISO 527 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	16	MPa
Elongation at tear by the criteria of DIN EN ISO 527 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	280	%
Young's modulus DMTA 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 72	200	MPa
Shore hardness D by the criteria of DIN EN ISO 868 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	30	
Glass transition temperature DMTA 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	95	°C
Coefficient of linear expansion DELO Standard 26 TMA Evaluation T: -30 °C - 130 °C 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h	185	ppm/K
Shrinkage DELO Standard 13 400 nm 200 mW/cm² 60 s	6.5	vol. %
Converting table		
$^{\circ}F = (^{\circ}C \times 1.8) + 32$ 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 $^{\circ}$ C / 50 $^{\circ}$ 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.

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

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

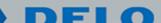
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DELO DUALBOND GE4931 | as of 19.06.2023 16:01 | Page 4 of 4

DELO Industrial Adhesives Headquarters





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