

DELO DUALBOND® LP735

modified epoxy resin | 1C | UV- / VIS- / heat-curing

free of solvents | filled

Special features of product

- compliant with RoHS Directive 2015/863/EU

Typical area of use

- 40 - 120 °C

Curing

Suitable lamp types	LED 365 nm, LED 400 nm, UVA
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Typical light fixation time

<i>intensity 200 mW/cm²</i> <i>LED 400 nm</i>	15	s
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Typical curing time

<i>at +120 °C</i> <i>in air convection oven</i>	20	min
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<i>at +130 °C</i> <i>in air convection oven</i>	15	min
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Processing

Typical adhesive application	needle dispensing
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Conditioning time (typical)

<i>when stored in cold conditions</i> <i>in containers up to 50 ml</i>	0.5	h
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<i>when stored in cold conditions</i> <i>in containers up to 1,000 ml</i>	6	h
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<i>when stored in cold conditions</i> <i>in containers up to 10 l</i>	12	h
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<i>when stored in cold conditions</i> <i>in containers up to 60 l</i>	24	h
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Storage life in unopened original container as from production date

<i>up to <= 1 l at 0 °C to +10 °C</i>	9	month(s)
<i>up to > 10 l per component at 0 °C to +10 °C</i>	6	month(s)

Technical properties

Transparency	transparent	
Color in cured condition in 0.1 mm layer thickness	yellow	
Transparency in cured condition in 0.1 mm layer thickness	transparent	
Color in cured condition in 1 mm layer thickness	yellow	
Transparency in cured condition in 1 mm layer thickness	transparent	

Parameters

Density <i>Based on DIN EN ISO 2811-3 liquid</i>	1.3	g/cm ³
Viscosity <i>liquid Rheometer Shear rate: 10 1/s</i>	900	mPa·s
Maximum curable layer thickness <i>DELO Standard 20 400 nm 200 mW/cm² 15 s Plus at approx. +23 °C 24 h</i>	1.2	mm
Compression shear strength <i>DELO Standard 5 Glass Al 400 nm 200 mW/cm² 15 s Plus at approx. +23 °C 24 h</i>	20	MPa
Compression shear strength <i>DELO Standard 5 Glass Glass 400 nm 200 mW/cm² 15 s Plus at approx. +23 °C 24 h</i>	10	MPa
Tensile strength <i>Based on DIN EN ISO 527 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	53	MPa
Elongation at tear <i>Based on DIN EN ISO 527 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	1.6	%
Young's modulus <i>DMTA 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	4800	MPa
Shore hardness D <i>Based on DIN EN ISO 868 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	87	

Glass transition temperature <i>DMTA 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	168	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 50 °C - 70 °C 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	70	ppm/K
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 160 °C - 180 °C 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	143	ppm/K
Shrinkage <i>DELO Standard 13 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min</i>	2.4	vol. %
Water absorption <i>Based on DIN EN ISO 62 Layer thickness: 4 mm 400 nm 200 mW/cm² 15 s Plus 130 °C 15 min Type of storage: Temp. Storage temperature: at approx. +23 °C Duration: 72 h Type of storage: Media Medium: Distilled water Storage temperature: at approx. +23 °C Duration: 24 h</i>	0.3	wt. %

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. Parameters can vary for pure light curing, pure heat curing and a combination of light and heat curing. In Abhängigkeit der eingesetzten Klebstoffmenge entsteht exotherme Reaktionswärme, die zu Überhitzung führen kann. In diesem Fall ist eine niedrigere Aushärtungstemperatur zu wählen. All curing or light fixation parameters depend on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer. Curing until final strength proceeds within 24 hours at room temperature. Light and heat curing mechanisms can be used independently. High temperatures during or after curing can lead to post-crosslinking of the adhesive which influences the physical properties of the bond. 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

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ADHESIVES

DISPENSING

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