

DELO® KATIOBOND® LP655

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

free of solvents | thixotropic | high water vapor barrier

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

Minimum irradiation dose

LED 400 nm 2000 mW·s/cm²

Typical irradiation time

*intensity 200 mW/cm²
LED 400 nm* 20 s

Typical curing time

*at rt approx. +23 °C
irradiated* 24 h

Processing

Typical adhesive application needle dispensing

Conditioning time (typical)

*when stored in cold conditions
in containers up to 1,000 ml* 6 h

*when stored in cold conditions
in containers up to 10 l* 12 h

Processing time

at rt approx. +23 °C 28 d

Storage life in unopened original container

at 0 °C to +10 °C 6 month(s)

Technical properties

Transparency	translucent
Color in cured condition in 0.1 mm layer thickness	colorless
Transparency in cured condition in 0.1 mm layer thickness	transparent
Color in cured condition in 1 mm layer thickness	yellowish

Parameters

Density <i>DELO Standard 13 liquid</i>	1.38	g/cm ³
Viscosity <i>liquid Rheometer Shear rate: 10 1/s</i>	12000	mPa·s
Thixotropy index <i>liquid Rheometer</i>	1.3	
Maximum curable layer thickness <i>DELO Standard 20 White substrate 400 nm 200 mW/cm² 20 s Plus at approx. +23 °C 24 h</i>	0.4	mm
Maximum curable layer thickness <i>DELO Standard 20 White substrate 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	0.7	mm
Compression shear strength <i>DELO Standard 5 Glass AI 400 nm 200 mW/cm² 20 s Plus at approx. +23 °C 24 h</i>	12	MPa
Compression shear strength <i>DELO Standard 5 Glass Glass 400 nm 200 mW/cm² 20 s Plus at approx. +23 °C 24 h</i>	9	MPa
Compression shear strength <i>DELO Standard 5 Glass PC 400 nm 200 mW/cm² 20 s Plus at approx. +23 °C 24 h</i>	3	MPa
Tensile strength <i>by the criteria of DIN EN ISO 527 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	22	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 24 h</i>	1	%
Young's modulus <i>DMTA 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h Type of storage: Temp. Storage temperature: 205 °C Duration: 30 min</i>	5300	MPa
Shore hardness D <i>by the criteria of DIN EN ISO 868 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	84	

Glass transition temperature <i>DMTA 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h Type of storage: Temp. Storage temperature: 205 °C Duration: 30 min</i>	183	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 30 °C - 40 °C 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	45	ppm/K
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 140 °C - 150 °C 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	132	ppm/K
Shrinkage <i>DELO Standard 13 400 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	2.4	vol. %
Permeation <i>Layer thickness: 300 µm 400 nm 200 mW/cm² 20 s Plus at approx. +23 °C 24 h Type of storage: Constant climate Storage temperature: 60 °C Humidity: 90 % Duration: 24 h</i>	6	(g·mm)/ (m ² ·24h)
Relative permittivity <i>1 MHz</i>	3.1	
Relative permittivity <i>10 MHz</i>	3.2	
Relative permittivity <i>100 MHz</i>	3.1	
Relative permittivity <i>1000 MHz</i>	3	

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. Curing until final strength proceeds within 24 hours at room temperature. 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

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CONTACT

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ADHESIVES

DISPENSING

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