

DELO[®] KATIOBOND[®] OB678

modified epoxy resin | 1C | UV-curing

free of solvents | thixotropic, low outgassing

Special features of product

- compliant with RoHS Directive 2015/863/EU
- halogen-free according to IEC 61249-2-21
- low-outgassing according to ASTM E 595-93 (also known as NASA outgassing test)
- low-outgassing according to ECSS-Q-70-02

Typical area of use

- -40 - 180 °C

Curing

Suitable lamp types UVA, LED 365 nm

Typical irradiation time

*intensity 200 mW/cm²
LED 365 nm* 10 s

Processing

Typical adhesive application needle dispensing

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 1,000 ml* 6 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

Color in cured condition in 0.1 mm layer thickness colorless

Transparency in cured condition in 0.1 mm layer thickness transparent

Parameters

Density 1.13 g/cm³
DELO Standard 13 | Liquid

Viscosity 8400 mPa·s
Liquid | Rheometer | Shear rate: 10 1/s

Thixotropy index 5.3
Liquid | Rheometer

Minimum irradiation time 3 s
DELO Standard 37 | DSC | 365 nm | 200 mW/cm² | Measuring temperature: 30 °C

Maximum curable layer thickness ≥ 4 mm
DELO Standard 20 | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h

Maximum curable layer thickness 2.1 mm
DELO Standard 20 | 365 nm | 200 mW/cm² | 3 s | Plus | 24 h

Compression shear strength 9 MPa
*DELO Standard 5 | **Glass** | **LCP E130i** | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h*

Compression shear strength 20 MPa
*DELO Standard 5 | **Glass** | **Glass** | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h*

Compression shear strength 20 MPa
*DELO Standard 5 | **Glass** | **FR4** | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h*

Compression shear strength 10 MPa
*DELO Standard 5 | **Glass** | **Stainless steel** | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h*

Compression shear strength 20 MPa
*DELO Standard 5 | **Glass** | **Al** | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h*

Tensile strength 50 MPa
Based on DIN EN ISO 527 | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h

Elongation at tear 3 %
Based on DIN EN ISO 527 | 365 nm | 200 mW/cm² | 10 s | Plus | 24 h

Young's modulus 3400 MPa
DMTA | 365 nm | 200 mW/cm² | 3 s | Plus | 24 h

Shore hardness D <i>Based on DIN EN ISO 868 365 nm 200 mW/cm² 10 s Plus 24 h</i>	85	
Glass transition temperature <i>DMTA 365 nm 200 mW/cm² 10 s Plus 24 h</i>	160	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: -40 °C - 10 °C 365 nm 200 mW/cm² 10 s Plus 24 h</i>	65	ppm/K
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 140 °C - 170 °C 365 nm 200 mW/cm² 10 s Plus 24 h</i>	154	ppm/K
Shrinkage <i>DELO Standard 13 365 nm 200 mW/cm² 10 s Plus 24 h</i>	3.9	vol. %
Water absorption <i>Based on DIN EN ISO 62 365 nm 200 mW/cm² 10 s Plus 24 h Type of storage: Media Medium: Distilled water Temp.: 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. Increasing or decreasing the curing temperature and / or irradiation intensity and / or irradiation intensity 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

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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.

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