

DELO[®] KATIOBOND[®] OM6600

modified epoxy resin | 1C | UV-curing

free of solvents | unfilled | flowable, self-leveling

Special features of product

- halogen-free according to IEC 61249-2-21
- compliant with RoHS Directive 2015/863/EU

Function

- casting compound

Typical area of use

- -40 - 120 °C
- production of optical components such as lenses in a replication process
- bonding of temperature-sensitive substrates

Curing

Suitable lamp types LED 365 nm, UVA

Typical irradiation time

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

Processing

Typical adhesive application needle dispensing

Annealing time

*120 °C
to increase optical transparency* 1 h

Process-related waiting time

to enable a non-destructive demolding required

Storage life in unopened original container

*up to <= 55 ml
at 0 °C to +25 °C* 6 month(s)

Technical properties

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

Parameters

Density <i>DELO Standard 13 liquid</i>	1.06	g/cm ³
Viscosity <i>liquid Rheometer Shear rate: 10 1/s Gap: 100 µm</i>	240	mPa·s
Maximum curable layer thickness <i>DELO Standard 20 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	4	mm
Compression shear strength <i>DELO Standard 5 Glass Glass 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	10	MPa
Compression shear strength <i>DELO Standard 5 Glass PBT 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	4	MPa
Compression shear strength <i>DELO Standard 5 Glass AI 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	10	MPa
Compression shear strength <i>DELO Standard 5 Glass FR4 Pretreatment: Annealing 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	8	MPa
Tensile strength <i>Based on DIN EN ISO 527 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	35	MPa
Elongation at tear <i>Based on DIN EN ISO 527 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	2	%
Young's modulus <i>DMTA 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	2950	MPa
Shore hardness D <i>Based on DIN EN ISO 868 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	79	
Glass transition temperature <i>DMTA 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	115	°C

Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 110 °C - 170 °C 365 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	169	ppm/K
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: -40 °C - 40 °C 365 nm 200 mW/cm² 60 s Plus at approx. +23 °C 24 h</i>	70	ppm/K
Shrinkage <i>DELO Standard 13 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h</i>	4	vol. %
Water absorption <i>Based on DIN EN ISO 62 365 nm 150 mW/cm² 10 s Plus at approx. +23 °C 24 h Type of storage: Media Medium: Distilled water Duration: 24 h</i>	0.3	wt. %
Abbe number <i>Refractometer 365 nm 200 mW/cm² 60 s Plus 120 °C 1 h</i>	53	
Decomposition temperature <i>DELO Standard 36</i>	240	°C

Index of refraction measured on the cured product						
Wavelength [nm]	404	514	589	636	985	1,550
Index of refraction n	1.522	1.510	1.506	1.504	1.497	1.493

Index of refraction according to Cauchy's formula

Cauchy parameters	
Parameter a	1.4912
Parameter b [nm²]	5.2642xE+03
Parameter c [nm⁴]	-3.8226xE+07
Formula	$n(\lambda) = a + b / \lambda^2 + c / \lambda^4$

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. 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

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

DELO KATIOBOND OM6600 | as of 09.09.2020 10:56 | Page 5 of 5

DELO Industrial Adhesives
Headquarters

▶ Germany · Windach / Munich ... www.DELO-adhesives.com

ADHESIVES

DISPENSING

CURING

CONSULTING