

# DELO<sup>®</sup> PHOTOBOND<sup>®</sup> UB4086

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

free of solvents | unfilled, thixotropic

## Special features of product

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

## Typical area of use

- -40 - 150 °C
- mixed bondings with plastics
- bonding of voice coil and membrane in miniloudspeakers
- structural housing bonding in miniloudspeakers

## Curing

Suitable lamp types	LED 365 nm, LED 400 nm, UVA
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Typical irradiation time

<i>intensity 200 mW/cm<sup>2</sup></i> <i>LED 400 nm</i> <i>layer thickness 100 µm</i>	4	s
<i>intensity 1000 mW/cm<sup>2</sup></i> <i>LED 400 nm</i> <i>layer thickness 100 µm</i>	3	s

## Processing

Conditioning time (typical)

<i>when stored in cold conditions</i> <i>in containers up to 50 ml</i>	30	min
<i>when stored in cold conditions</i> <i>in containers up to 600 ml</i>	4	h

Storage life in unopened original container

<i>at 0 °C to +25 °C</i>	6	month(s)
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## Technical properties

Transparency	translucent
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Color in cured condition in 0.1 mm layer thickness	red
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Fluorescence red + blue fluorescent

**Parameters**

Density 1.11 g/cm<sup>3</sup>  
*liquid*

Viscosity 110000 mPa·s  
*liquid | Viscosimeter*

Viscosity 75000 mPa·s  
*liquid | Rheometer | Shear rate: 2 1/s | Gap: 500 µm*

Viscosity 20000 mPa·s  
*liquid | Rheometer | Shear rate: 10 1/s | Gap: 500 µm*

Compression shear strength 12 MPa  
*DELO Standard 5 | **Glass** | **AI** | 60 mW/cm<sup>2</sup> | 60 s*

Compression shear strength 20 MPa  
*DELO Standard 5 | **Glass** | **FR4** | 60 mW/cm<sup>2</sup> | 60 s*

Compression shear strength 22 MPa  
*DELO Standard 5 | **Glass** | **Glass** | 60 mW/cm<sup>2</sup> | 60 s*

Compression shear strength 15 MPa  
*DELO Standard 5 | **Glass** | **PA6** | 60 mW/cm<sup>2</sup> | 60 s*

Compression shear strength 6 MPa  
*DELO Standard 5 | **Glass** | **PBT** | 60 mW/cm<sup>2</sup> | 60 s*

Compression shear strength 12 MPa  
*DELO Standard 5 | **Glass** | **PPA** | 60 mW/cm<sup>2</sup> | 60 s*

Compression shear strength 25 MPa  
*DELO Standard 5 | **PC** | **PC** | 60 mW/cm<sup>2</sup> | 60 s*

Compression shear strength 20 MPa  
*DELO Standard 5 | **PMMA** | **PMMA** | 60 mW/cm<sup>2</sup> | 60 s*

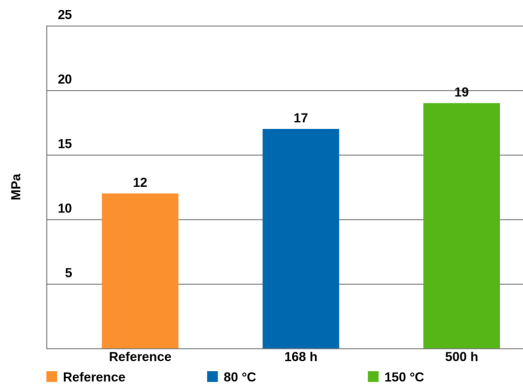
Tensile strength 12 MPa  
*by the criteria of DIN EN ISO 527 | 60 mW/cm<sup>2</sup> | 90 s*

Elongation at tear 315 %  
*by the criteria of DIN EN ISO 527 | 60 mW/cm<sup>2</sup> | 90 s*

Young's modulus 200 MPa  
*by the criteria of DIN EN ISO 527 | 60 mW/cm<sup>2</sup> | 90 s*

Shore hardness D <i>by the criteria of DIN EN ISO 868   60 mW/cm<sup>2</sup>   90 s</i>	45	
Glass transition temperature <i>DELO Standard 24   Rheometer</i>	90	°C
Shrinkage <i>DELO Standard 13   60 mW/cm<sup>2</sup>   60 s   Plus   at approx. +23 °C   24 h</i>	6	vol. %
Extractable ions <i>Ion: Chloride</i>	<5	ppm
Extractable ions <i>Ion: Fluoride</i>	<5	ppm
Extractable ions <i>Ion: Potassium</i>	<5	ppm
Extractable ions <i>Ion: Sodium</i>	<5	ppm

Tensile strength after temperature storage, by the criteria of DIN EN ISO 527



**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. 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](http://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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