

### **DELO-PHOTOBOND® UB4086**

UV- and light curing acrylate adhesive, high viscosity

#### **Base**

- modified urethane acrylate
- one-component, solvent-free

#### **Use**

- For the bonding of membranes and coils in mini loudspeakers
- Good adhesion to plastics like PEEK, PEN, PEI and PAR
- Very fast curing
- Easy application control due to fluorescent color
- the cured product is normally used in a temperature range of -40°C to +150°C; depending on the application, other limits may be more reasonable
- Compliant with RoHS directive 2015/863/EU

#### **Processing**

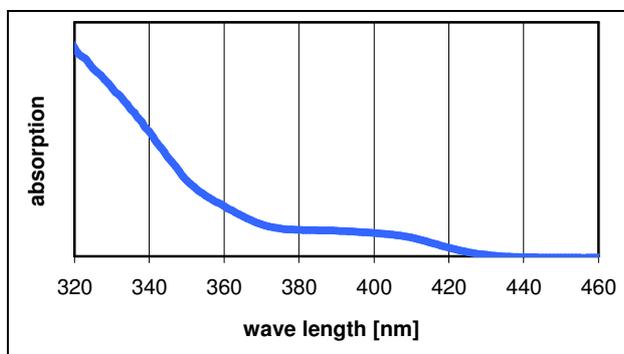
- the adhesive is supplied ready for use
- the adhesive can be applied by dispensing
- the surfaces to be bonded must be dry as well as free of dust, grease and other contaminations
- dispensing valves and product-bearing elements must be carefully cleaned before use, residues of other products must be completely removed; DELOTHEN EP as well as acetone, isopropanol or a mixture of both are recommended to remove DELO-PHOTOBOND residues
- for further information please refer to our instructions for use DELO-PHOTOBOND and the brochure "Light Curing"

#### **Curing**

- with UV light or visible light in a wavelength range of 320 - 450 nm

#### **Absorption spectrum**

photoinitiation system in acrylate matrix



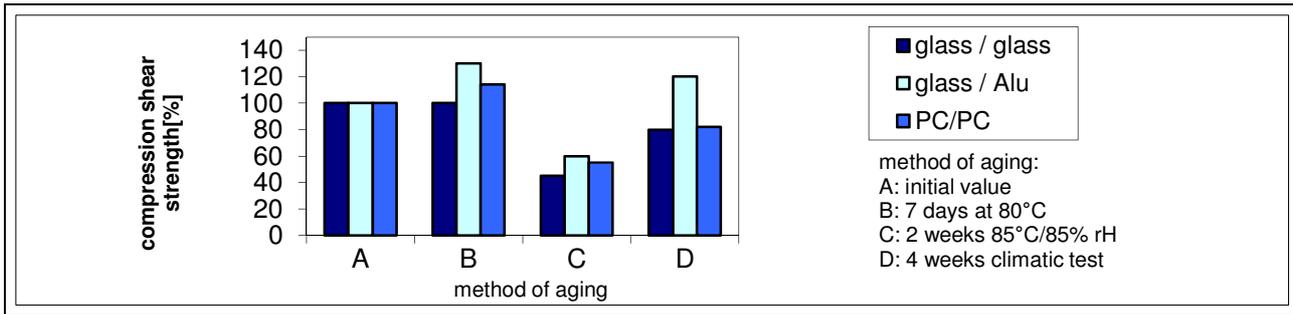
## **Curing parameters**

- dependent on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer

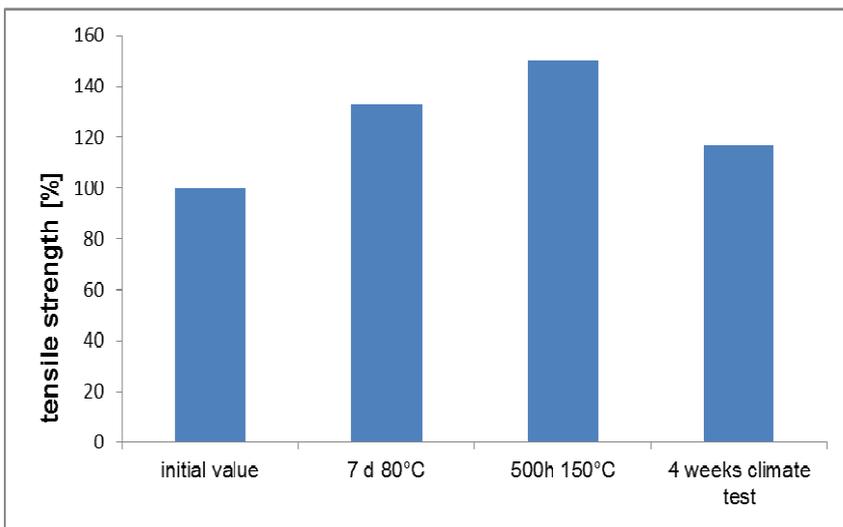
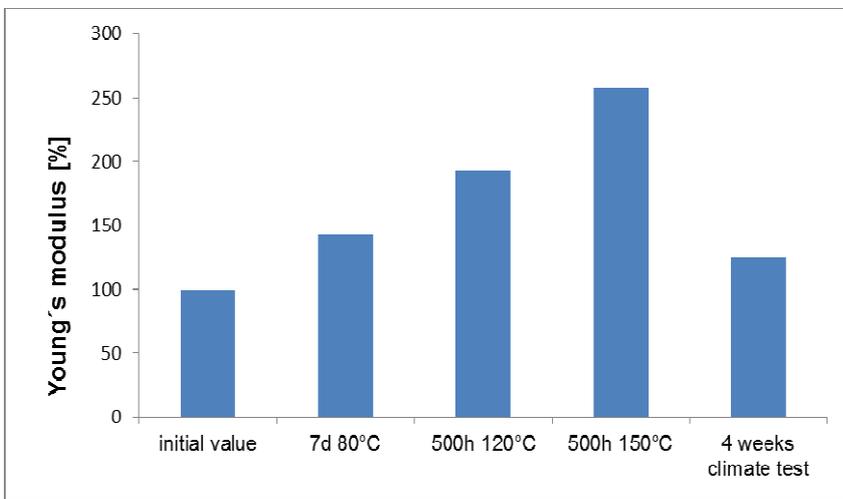
## **Technical data**

|  |                 |
|--|-----------------|
| <i>Color</i><br>cured  | red fluorescent |
| Density [g/cm <sup>3</sup> ]<br>DELO standard 13   | 1,1             |
| <i>Viscosity</i> [mPas]<br>at 23 °C, Brookfield spindle/rpm 7/5  | 110000          |
| Minimal curing time [s]<br>DELO Standard 23, UVA intensity: 60 mW/cm <sup>2</sup> , DELOLUXcontrol   | 6               |
| Compression shear strength glass/glass [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> , DELOLUXcontrol, irradiation time: 60 s  | 20              |
| Compression shear strength glass/Al [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> , DELOLUXcontrol, irradiation time: 60 s     | 10              |
| Compression shear strength glass/PA [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> , DELOLUXcontrol, irradiation time: 60 s     | 13              |
| Compression shear strength glass/PBT [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> ; DELOLUXcontrol, irradiation time: 60 s    | 6               |
| compression shear strength glass / PPA [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> ; DELOLUXcontrol, irradiation time: 60 s  | 12              |
| Compression shear strength glass/FR4 [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> , DELOLUXcontrol, irradiation time: 60 s    | 17              |
| <i>Compression shear strength PC/PC</i> [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> , DELOLUXcontrol, irradiation time: 60 s | 22              |
| Compression shear strength PMMA/PMMA [MPa]<br>DELO Standard 5<br>UVA intensity: 55 - 60 mW/cm <sup>2</sup> , DELOLUXcontrol, irradiation time: 60 s    | 18              |
| Tensile strength [MPa]<br>DIN EN ISO 527   | 12              |
| Elongation at tear [%]<br>DIN EN ISO 527   | 300             |
| Young's modulus [MPa]<br>DIN EN ISO 527  | 190             |

Compression shear strength  
after aging



Material properties  
after aging



Shore hardness D  
according to DIN EN ISO 868

46

Glass transition temperature [°C]  
rheometer

90

Volume shrinkage [%]

6

DELO Standard 13

Storage life

6 months

at room temperature (+18 °C to +25 °C) in unopened original container

## **Instructions and advice**

### **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 the product for the intended purpose by considering all specific requirements. Type and 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. The data and information provided are therefore no guarantee for specific product properties or the suitability of the product for the intended 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 DELOs' General Terms of Business. Verbal side agreements are not permitted. This document is subject to change.

### **Instructions for use**

The instructions for use of DELO-PHOTOBOND are available on: [www.DELO.de](http://www.DELO.de). We will be pleased to send them to you on demand.

### **Occupational health and safety**

see material safety data sheet

### **Specification**

The properties in italics are part of the specification. Ranges with clear limits are defined for them and others, where applicable. In the course of the QA test, each batch is tested for these properties and the maintenance of the limits is ensured. The measuring methods used can deviate from those specified in the data sheet. Details can be found in the QA test report.