DELO® PHOTOBOND® AD491

modified acrylate | 1C | UV- / VIS-curing
free of solvents | low outgassing, unfilled

Special features of product
- compliant with RoHS Directive 2015/863/EU

Typical area of use
- -40 - 120 °C
- glass/metal bondings
- mixed bondings with plastics

Curing

Suitable lamp types
- LED 365 nm, LED 400 nm, UVA

Typical irradiation time

<table>
<thead>
<tr>
<th>Intensity</th>
<th>UVA</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 - 60 mW/cm²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>200 mW/cm²</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LED 400 nm</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Processing

Storage life in unopened original container
at +18 °C to +25 °C
- 6 month(s)

Technical properties

Color in uncured condition
- colorless

Transparency
- translucent

Color in cured condition in 0.1 mm layer thickness
- colorless

Color in cured condition in 1 mm layer thickness
- colorless

Parameters

Density
- liquid 1.1 g/cm³
## Technical Data Sheet

**Viscosity**  
Based on DIN EN 12092 | liquid | Viscosimeter  
- 90000 mPa·s

**Compression shear strength**  
DELO Standard 5 | Glass | Glass | 60 mW/cm² | 60 s  
- 25 MPa

**Compression shear strength**  
DELO Standard 5 | Glass | PMMA | 60 mW/cm² | 60 s  
- 8 MPa

**Compression shear strength**  
DELO Standard 5 | Glass | Al | 60 mW/cm² | 60 s  
- 25 MPa

**Compression shear strength**  
DELO Standard 5 | PC | Al | 60 mW/cm² | 60 s  
- 14 MPa

**Compression shear strength**  
DELO Standard 5 | PMMA | PMMA | 60 mW/cm² | 60 s  
- 12 MPa

**Compression shear strength**  
DELO Standard 5 | Glass | Stainless steel | 60 mW/cm² | 60 s  
- 28 MPa

**Compression shear strength**  
DELO Standard 5 | PC | PC | 60 mW/cm² | 60 s  
- 28 MPa

**Compression shear strength**  
DELO Standard 5 | Glass | PC | 60 mW/cm² | 60 s  
- 18 MPa

**Tensile strength**  
Based on DIN EN ISO 527 | 60 mW/cm² | 90 s  
- 20 MPa

**Elongation at tear**  
Based on DIN EN ISO 527 | 60 mW/cm² | 90 s  
- 150 %

**Young's modulus**  
DMTA | 400 nm | 200 mW/cm² | 60 s  
- 900 MPa

**Shore hardness D**  
Based on DIN EN ISO 868 | 60 mW/cm² | 90 s  
- 60

**Glass transition temperature**  
DMTA | 400 nm | 200 mW/cm² | 60 s  
- 100 °C

**Shrinkage**  
DELO Standard 13 | 400 nm | 200 mW/cm² | 60 s  
- 7.5 vol. %
Water absorption

Based on DIN EN ISO 62 | 60 mW/cm² | 90 s | Type of storage: Media | Medium: Distilled water |
Storage temperature: at approx. +23 °C

1 wt. %

Converting table

<table>
<thead>
<tr>
<th>°F</th>
<th>°C x 1.8</th>
<th>+ 32</th>
<th>1 MPa = 145.04 psi</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 inch</td>
<td>25.4 mm</td>
<td></td>
<td>1 GPa = 145.04 ksi</td>
</tr>
<tr>
<td>1 mil</td>
<td>25.4 µm</td>
<td>1 cP</td>
<td>= 1 mPa·s</td>
</tr>
<tr>
<td>1 oz</td>
<td>28.3495 g</td>
<td>1 N</td>
<td>= 0.225 lb</td>
</tr>
</tbody>
</table>

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.
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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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