DELO DUALBOND® IC4753

**modified acrylate | 1C | UV- / VIS- / heat-curing**
free of solvents | silver-filled, thixotropic | light-fixable, low-temperature-curing, isotropic electrically conductive

**Special features of product**
- compliant with RoHS Directive 2015/863/EU
- halogen-free according to IEC 61249-2-21

**Function**
- electronic adhesive

**Typical area of use**
- -40 - 120 °C

**Curing**

<table>
<thead>
<tr>
<th>Suitable lamp types</th>
<th>LED 365 nm, LED 400 nm</th>
</tr>
</thead>
</table>

**Typical light fixation time**

- **intensity 200 mW/cm²**
  - LED 400 nm
    - 10 s

**Typical curing time**

- **at +80 °C**
  - in air convection oven
    - 20 min

- **at +100 °C**
  - in air convection oven
    - 10 min

**Processing**

**Conditioning time (typical)**

- **when stored in cold conditions**
  - in containers up to 10 ml
    - 0.5 h

**Processing time**

- **in standard climate +23 °C / 50 % r. h.**
  - 24 h

**Storage life in unopened original container**

- **at -40 °C**
  - 3 month(s)
### Technical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color in cured condition in 1 mm layer thickness</td>
<td>silver-gray</td>
</tr>
<tr>
<td>Transparency in cured condition in 1 mm layer thickness</td>
<td>opaque</td>
</tr>
<tr>
<td>Filler particle type</td>
<td>silver</td>
</tr>
</tbody>
</table>

### Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Density</strong></td>
<td>3.17 g/cm³</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>30000 mPa·s</td>
</tr>
<tr>
<td><strong>Thixotropy index</strong></td>
<td>10</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>13 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>14 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>11 MPa</td>
</tr>
<tr>
<td><strong>Die shear strength</strong></td>
<td>16 N</td>
</tr>
<tr>
<td><strong>Die shear strength</strong></td>
<td>18 N</td>
</tr>
<tr>
<td><strong>Tensile strength</strong></td>
<td>9 MPa</td>
</tr>
<tr>
<td><strong>Elongation at tear</strong></td>
<td>70 %</td>
</tr>
<tr>
<td><strong>Young's modulus</strong></td>
<td>120 MPa</td>
</tr>
<tr>
<td><strong>Shore hardness A</strong></td>
<td>81</td>
</tr>
</tbody>
</table>
Glass transition temperature
DELO Standard 26 | TMA | 100 °C | 15 min
43 °C

Coefficient of linear expansion
DELO Standard 26 | TMA | Evaluation T: -40 °C - 0 °C | 100 °C | 15 min
62 ppm/K

Coefficient of linear expansion
DELO Standard 26 | TMA | Evaluation T: 60 °C - 100 °C | 100 °C | 15 min
167 ppm/K

Shrinkage
100 °C | 15 min
5 vol. %

Water absorption
Based on DIN EN ISO 62 | 100 °C | 15 min | Type of storage: Media | Medium: Distilled water | Duration: 24 h
0.1 wt. %

Specific thermal conductivity
DELO Standard 47 | 100 °C | 15 min
0.9 W/(m·K)

Electrical resistivity
DELO Standard 29 | 100 °C | 15 min
0.1 mOhm·cm

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. The heating time of the components must be added to the actual curing time. It depends on component size and type of heat input. The specified curing temperature must be reached directly at the adhesive. 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.
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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