DELO DUALBOND® IC343

modified polycarbamin acid derivate | 1C | light-fixable / heat-curing
free of solvents | heat curing mandatory, light-fixable, low-temperature-curing, isotropic electrically conductive, thixotropic, silver-filled

Special features of product
- compliant with RoHS Directive 2015/863/EU
- halogen-free according to IEC 61249-2-21
- compliant with limits of VOC content in adhesive acc. to GB33372-2020
- tested for biocompatibility and meets the requirements according to DIN EN ISO 10993-5: test for cytotoxicity

Function
- electronic adhesive

Typical area of use
- -40 - 130 °C

Curing

Suitable lamp types: LED 365 nm, LED 400 nm

Typical light fixation time

<table>
<thead>
<tr>
<th>intensity 200 mW/cm²</th>
<th>1 - 5 s</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED 365 nm</td>
<td></td>
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</tbody>
</table>

Typical curing time

| at +80 °C in air convection oven | 30 min |
| at +90 °C in air convection oven | 15 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 |
| when stored in cold conditions in containers up to 50 ml | 1 h |
### Processing time

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

| 72 h |

### Storage life in unopened original container

*at -45 °C to -15 °C*

| 6 month(s) |

### Technical properties

- **Color in cured condition in 1 mm layer thickness**: silver-gray
- **Transparency in cured condition in 1 mm layer thickness**: opaque
- **Filler particle type**: silver

### Parameters

<table>
<thead>
<tr>
<th>Parameter Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Density</strong></td>
<td>3 g/cm³</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>42000 mPa·s</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>12 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>5 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>7 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>10 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>4 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>10 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>13 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>5 MPa</td>
</tr>
</tbody>
</table>
Coefficient of linear expansion
DELO Standard 26 | TMA | Evaluation T: 35 °C - 150 °C | 100 °C | 10 min
| 150 | ppm/K

Shrinkage
DELO Standard 13 | 100 °C | 10 min
| 2.2 | vol. %

Water absorption
by the criteria of DIN EN ISO 62 | 100 °C | 10 min | Type of storage: Temp. | Storage temperature: at approx. +23 °C | Duration: 72 h | Type of storage: Media | Medium: Distilled water | Storage temperature: at approx. +23 °C | Duration: 24 h
| 0.2 | wt. %

Specific thermal conductivity
by the criteria of ASTM D 5470 | 100 °C | 10 min
| 1.8 | W/(m·K)

Specific thermal conductivity
by the criteria of ASTM E 1461 | 100 °C | 10 min
| 1.5 | W/(m·K)

Electrical resistivity
DELO Standard 29 | 100 °C | 10 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. Depending on the adhesive quantity used, exothermic reaction heat is generated which can lead to overheating. In this case, a lower curing temperature is to be selected. 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
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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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