DELO® KATIOBOND® KB554

modified epoxy resin | 1C | preactivated
free of solvents | unfilled | electrically insulating, self-leveling, tension-equalizing, preactivated

Special features of product
- compliant with RoHS Directive 2015/863/EU
- passes ANSI/UL 94 HB Flame Test

Function
- sealant
- electronic encapsulant

Typical area of use
- -40 - 150 °C
- pin sealing
- pin potting

Curing

Suitable lamp types
LED 365 nm, LED 400 nm, LED 460 nm, UVA

Typical preactivation time
Intensity 200 mW/cm²
LED 460 nm
7 s

Typical open time
Intensity 200 mW/cm²
LED 460 nm
15 - 20 s

Typical irradiation time
Intensity 200 mW/cm²
LED 400 nm
20 - 60 s

Processing
Storage life in unopened original container
at 0 °C to +25 °C
6 month(s)

Technical properties
Color in cured condition in 0.1 mm layer thickness
yellow
## Parameters

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Density</strong> Based on DIN EN ISO 2811-3</td>
<td>liquid 1.14 g/cm³</td>
</tr>
<tr>
<td><strong>Viscosity</strong> liquid</td>
<td>Rheometer, Shear rate: 10 1/s 1500 mPa·s</td>
</tr>
<tr>
<td><strong>Maximum layer thickness that can be preactivated</strong></td>
<td>≥4 mm</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>20 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>20 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>11 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>20 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>28 MPa</td>
</tr>
<tr>
<td><strong>Compression shear strength</strong></td>
<td>7 MPa</td>
</tr>
<tr>
<td><strong>Tensile strength</strong> Based on DIN EN ISO 527</td>
<td>32 MPa</td>
</tr>
<tr>
<td><strong>Elongation at tear</strong> Based on DIN EN ISO 527</td>
<td>90 %</td>
</tr>
</tbody>
</table>
Young's modulus
DMTA | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | 24 h
1200 MPa

Shore hardness D
Based on DIN EN ISO 868 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | 24 h
52

Glass transition temperature
DMTA | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | 24 h
43 °C

Coefficient of linear expansion
DELO Standard 26 | TMA | Evaluation T: 30 °C - 150 °C | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | 24 h
209 ppm/K

Shrinkage
DELO Standard 13 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | 24 h
3.7 vol. %

Water absorption
Based on DIN EN ISO 62 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | 24 h | Type of storage: Media | Medium: Distilled water | Duration: 24 h
1.1 wt. %

Decomposition temperature
DELO Standard 36 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | 24 h | Type of storage: Temp. | Storage temperature: 100 °C | Duration: 24 h
239 °C

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.
A short irradiation time (preactivation time) results in an open time within which opaque components can be joined.
The cationic curing mechanism enables the adhesive to cure on opaque components after joining by sufficient preactivation.
All curing or light fixation parameters depend on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer.
Curing until final strength proceeds within 24 hours at room temperature.
High temperatures during or after curing can lead to post-crosslinking of the adhesive which influences the physical properties of the bond.
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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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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