DELO® MONOPOX LT204

modified epoxy resin | 1C | heat-curing
free of solvents | filled | low-temperature-curing from + 60 °C

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

Typical area of use
- -40 - 150 °C

Curing

Typical curing time

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Curing Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>+60 °C</td>
<td>90 min</td>
</tr>
<tr>
<td>+90 °C</td>
<td>15 min</td>
</tr>
</tbody>
</table>

Processing

Typical adhesive application
- screen printing, jetting, needle dispensing

Conditioning time (typical)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>stored in cold conditions in containers up to 10 ml</td>
<td>0.5 h</td>
</tr>
<tr>
<td>stored in cold conditions in containers up to 50 ml</td>
<td>1 h</td>
</tr>
</tbody>
</table>

Processing time

in standard climate +23 °C / 50 % r. h. | 72 h

Storage life in unopened original container

at -18 °C | 4 month(s)

Technical properties

Color in uncured condition | black
Filler particle type | minerals
Filler particle size

<table>
<thead>
<tr>
<th>Parameters</th>
<th>d98 = 15 µm</th>
</tr>
</thead>
</table>

### Density

| DELO Standard 13 | Liquid       | 1.53 g/cm³ |

### Viscosity

| Liquid | Rheometer | Shear rate: 10 1/s | Gap: 100 µm | 28000 mPa·s |

### Compression shear strength

<table>
<thead>
<tr>
<th>DELO Standard 5</th>
<th>LCP E540i</th>
<th>LCP E540i</th>
<th>60 °C</th>
<th>90 min</th>
<th>10 MPa</th>
</tr>
</thead>
<tbody>
<tr>
<td>DELO Standard 5</td>
<td>PS</td>
<td>PS</td>
<td>60 °C</td>
<td>90 min</td>
<td>9 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>PPS</td>
<td>PPS</td>
<td>60 °C</td>
<td>90 min</td>
<td>15 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>PMMA</td>
<td>PMMA</td>
<td>60 °C</td>
<td>90 min</td>
<td>16 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>PB1</td>
<td>PB1</td>
<td>60 °C</td>
<td>90 min</td>
<td>10 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>PA6</td>
<td>PA6</td>
<td>60 °C</td>
<td>90 min</td>
<td>19 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>LCP E130i</td>
<td>LCP E130i</td>
<td>60 °C</td>
<td>90 min</td>
<td>9 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>FR4</td>
<td>FR4</td>
<td>60 °C</td>
<td>90 min</td>
<td>26 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>AI</td>
<td>AI</td>
<td>60 °C</td>
<td>90 min</td>
<td>27 MPa</td>
</tr>
<tr>
<td>DELO Standard 5</td>
<td>ABS</td>
<td>ABS</td>
<td>60 °C</td>
<td>90 min</td>
<td>13 MPa</td>
</tr>
</tbody>
</table>

### Tensile strength

| Based on DIN EN ISO 527 | 60 °C | 90 min | 20 MPa |

### Elongation at tear

| Based on DIN EN ISO 527 | 60 °C | 90 min | 35 %   |
Young's modulus
Based on DIN EN ISO 527 | 60 °C | 90 min
400 MPa

Shore hardness D
Based on DIN EN ISO 868 | 60 °C | 90 min
77

Glass transition temperature
DELO Standard 26 | TMA | 60 °C | 90 min
30 °C

Coefficient of linear expansion
DELO Standard 26 | TMA | Evaluation T: -10 °C - 20 °C | 60 °C | 90 min
43 ppm/K

Coefficient of linear expansion
DELO Standard 26 | TMA | Evaluation T: 55 °C - 170 °C | 60 °C | 90 min
149 ppm/K

Shrinkage
DELO Standard 13 | 60 °C | 90 min
4 vol. %

Water absorption
Based on DIN EN ISO 62 | 60 °C | 90 min | Type of storage: Desiccator | Duration: 72 h
0.2 wt. %

Converting table
°F  = (°C x 1.8) + 32
1 MPa = 1 GPa = 150.04 psi
1 inch = 25.4 mm
1 mil = 25.4 μm
1 oz = 28.3495 g
1 cP = 1 mPa.s
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 oven type. The specified curing temperature must be reached directly at the adhesive.
Increasing or decreasing the curing temperature and / or irradiation intensity 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 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
Nothing contained in this Technical Datasheet shall be interpreted as any express warranty or guarantee. This Technical Datasheet is for reference only and does not constitute a product specification. Please ask our responsible Sales Engineer for the applicable product specification which includes defined ranges. DELO is neither liable for any values and content of this Technical Datasheet nor for oral or written recommendations regarding the use, unless otherwise agreed in writing. This limitation of liability is not applicable for damages resulting from intent, gross negligence or culpable breach of cardinal obligations, nor shall it apply in case of death or personal injury or in case of liability under any applicable compulsory law.