# DELO-DUOPOX® CR8720

**modified epoxy resin | 2C | heat-curing**

thixotropic, filled | very good temperature resistance, very good media resistance

### 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
- Component B is humidity-sensitive
- Long-term preheating of components is possible
- The filler may sediment. Therefore, the individual components must be stirred before use
- Any formation of bubbles during homogenization or mixing can be significantly minimized by using a processing system with vacuum unit

### Function

- encapsulant / potting compound
- electronic encapsulant
- Fill for Dam&Fill

### Typical area of use

- -40 - 200 °C

## Curing

| | | |
|---|---|---|
| Curing time | | |
| *at +130 °C* | 60 | min |
| *at +150 °C* | 10 | min |

## Processing

| | | |
|---|---|---|
| Mixing ratio A : B - volume | 0.93 : 1 | |
| Mixing ratio A : B - weight | 0.94 : 1 | |
| Open time after mixing | 6 | h |
| Storage life in unopened original container | | |
| *at +15 °C to +30 °C* | 9 | month(s) |

## Technical properties

| | | |
|---|---|---|
| Color in cured condition in 0.1 mm layer thickness | black | |

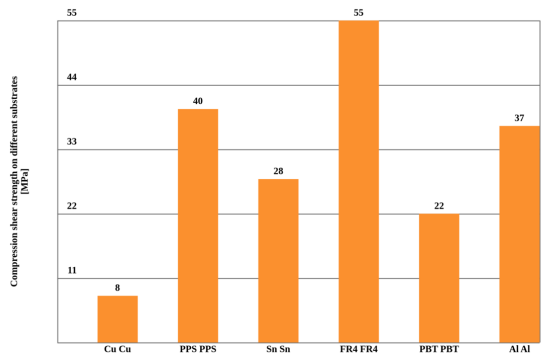
| | | |
|---|---|---|
| Transparency in cured condition in 0.1 mm layer thickness | opaque | |
| Fluorescence | fluorescent | |
| Filler particle type | minerals | |
| Filler particle size of component A | d95 = 65 µm | |
| Filler particle size of component B | d95 = 65 µm | |
| Filler content of component A | 78 | wt. % |
| Filler content of component B | 75 | wt. % |

## Parameters

| | | |
|---|---|---|
| Density<br>*Component A \| liquid* | 1.85 | g/cm³ |
| Density<br>*Component B \| liquid* | 1.83 | g/cm³ |
| Viscosity<br>*Component A \| liquid \| Rheometer \| Shear rate: 10 1/s \| Gap: 200 µm* | 28500 | mPa·s |
| Viscosity<br>*Component B \| liquid \| Rheometer \| Shear rate: 10 1/s \| Gap: 200 µm* | 7000 | mPa·s |
| Compression shear strength<br>*DELO Standard 5 \| **Al** \| **Al** \| 150 °C \| 20 min* | 37 | MPa |
| Tensile strength<br>*Based on DIN EN ISO 527 \| 150 °C \| 20 min* | 72 | MPa |
| Elongation at tear<br>*Based on DIN EN ISO 527 \| 150 °C \| 20 min* | 0.5 | % |
| Young's modulus<br>*Based on DIN EN ISO 527 \| 150 °C \| 20 min* | 15000 | MPa |
| Shore hardness D<br>*Based on DIN EN ISO 868 \| 150 °C \| 20 min* | 92 | |
| Glass transition temperature<br>*DELO Standard 26 \| TMA \| 150 °C \| 20 min* | 175 | °C |
| Coefficient of linear expansion<br>*DELO Standard 26 \| TMA \| Evaluation T: 30 °C - 150 °C \| 150 °C \| 20 min* | 18 | ppm/K |

| | | |
|---|---|---|
| Shrinkage<br>*DELO Standard 13 \| 150 °C \| 20 min* | 1 | vol. % |
| Water absorption<br>*Based on DIN EN ISO 62 \| 150 °C \| 20 min \| Type of storage: Media \| Medium: Distilled water \| Storage temperature: at approx. +23 °C* | 0.07 | wt. % |
| Decomposition temperature<br>*DELO Standard 36 \| liquid* | 311 | °C |
| Specific thermal conductivity<br>*DELO Standard 47 \| 150 °C \| 20 min* | 0.6 | W/(m·K) |
| Specific thermal conductivity<br>*Based on ASTM E 1461 \| 150 °C \| 20 min* | 0.6 | W/(m·K) |
| Volume resistivity<br>*Based on DIN IEC 60093 \| 150 °C \| 20 min* | >5E+15 | Ohm·cm |
| Surface resistance<br>*Based on DIN EN 62631-3-2 \| 150 °C \| 20 min* | >2E+14 | Ohm |
| Dielectric strength<br>*150 °C \| 20 min* | >22 | kV/mm |
| Relative permittivity<br>*Based on DIN 53483-2 \| 150 °C \| 20 min \| 1 kHz* | 3.6 | |
| Relative permittivity<br>*Based on DIN 53483-2 \| 150 °C \| 20 min \| 1 MHz* | 3.5 | |
| Relative permittivity<br>*Based on DIN 53483-2 \| 150 °C \| 20 min \| 100 kHz* | 3.5 | |

Compression shear strength on different substrates, based on DELO-Norm 5



## 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.In Abhängigkeit der eingesetzten Klebstoffmenge entsteht exotherme Reaktionswärme, die zu Überhitzung führen kann. In diesem Fall ist eine niedrigere Aushärtungstemperatur zu wählen.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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