# DELO-DUOPOX® SJ8665

**modified epoxy resin | 2C | room-temperature-curing**

filled, high-strength | very good temperature resistance, suitable for side-by-side cartridges, flow-resistant

### Special features of product

- compliant with limits of VOC content in adhesive acc. to GB33372-2020

### Function

- structural adhesive
- electronic adhesive

### Typical area of use

- -40 - 180 °C
- metal bondings

## Curing

Curing time

| | | |
|---|---|---|
| *until initial strength<br>at rt approx. +23 °C<br>tensile shear strength 1 - 2 MPa* | 3.5 | h |
| *until functional strength<br>at rt approx. +23 °C<br>tensile shear strength > 10 MPa* | 5 | h |
| *until final strength<br>at rt approx. +23 °C* | 7 | d |
| *until initial strength<br>at +80 °C<br>tensile shear strength 1 - 2 MPa* | 5 | min |
| *until functional strength<br>at +80 °C<br>tensile shear strength > 10 MPa* | 10 | min |
| *until final strength<br>at +80 °C* | 60 | min |

## Processing

| | |
|---|---|
| Mixing ratio A : B - volume | 2 : 1 |
| Mixing ratio A : B - weight | 1.65 : 1 |

| | | |
|---|---|---|
| Processing time after mixing | | |
| *in 20 g batch*<br>*at rt approx. +23 °C* | 15 | min |
| *in 100 g batch*<br>*at rt approx. +23 °C* | 40 | min |
| Storage life in unopened original container | | |
| *up to <= 1 l*<br>*at +15 °C to +30 °C* | 12 | month(s) |
| *at +15 °C to +30 °C* | 9 | month(s) |

## Technical properties

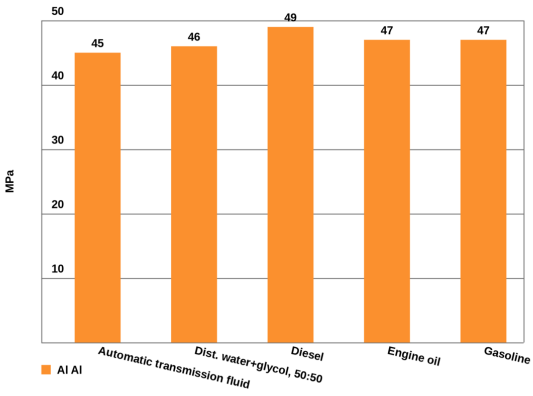
| | |
|---|---|
| Color in cured condition in 1 mm layer thickness | black |
| Filler particle type | minerals |

## Parameters

| | | |
|---|---|---|
| Density<br>*Component A \| liquid* | 1.16 | g/cm³ |
| Density<br>*Component B \| liquid* | 1.41 | g/cm³ |
| Viscosity<br>*Component A \| liquid \| Rheometer \| Shear rate: 2 1/s \| Gap: 500 µm* | 300000 | mPa·s |
| Viscosity<br>*Component B \| liquid \| Rheometer \| Shear rate: 2 1/s \| Gap: 500 µm* | 30000 | mPa·s |
| Tensile shear strength<br>*Based on DIN EN 1465 \| **Al** \| **Al** \| Pretreatment: sand-blasted \| at approx. +23 °C \| 168 h* | 32 | MPa |
| Tensile shear strength<br>*Based on DIN EN 1465 \| **Steel** \| **Steel** \| Pretreatment: sand-blasted \| at approx. +23 °C \| 7 d* | 24 | MPa |
| Compression shear strength<br>*DELO Standard 5 \| **Al** \| **Al** \| Pretreatment: sand-blasted \| at approx. +23 °C \| 7 d* | 30 | MPa |
| Tensile strength<br>*Based on DIN EN ISO 527 \| at approx. +23 °C \| 7 d* | 46 | MPa |
| Elongation at tear<br>*Based on DIN EN ISO 527 \| at approx. +23 °C \| 7 d* | 3.5 | % |

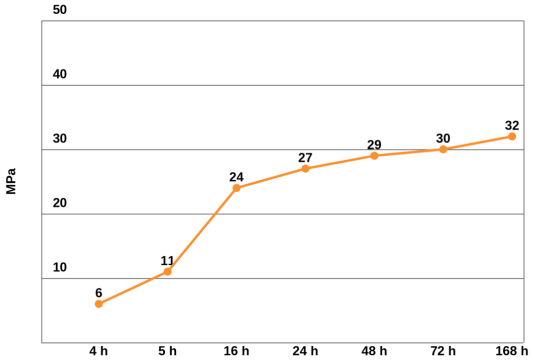
| | | |
|---|---|---|
| Young's modulus<br>*Based on DIN EN ISO 527 | at approx. +23 °C | 7 d* | 3300 | MPa |
| Shore hardness D<br>*Based on DIN EN ISO 868 | at approx. +23 °C | 7 d* | 77 | |
| Shore hardness D<br>*Based on DIN EN ISO 868 | 80 °C | 1 h* | 82 | |
| Glass transition temperature<br>*DMTA | at approx. +23 °C | 7 d* | 126 | °C |
| Coefficient of linear expansion<br>*DELO Standard 26 | TMA | Evaluation T: 35 °C - 100 °C | at approx. +23 °C | 7 d* | 82 | ppm/K |
| Coefficient of linear expansion<br>*DELO Standard 26 | TMA | Evaluation T: 120 °C - 175 °C | at approx. +23 °C | 7 d* | 171 | ppm/K |
| Shrinkage<br>*DELO Standard 13 | at approx. +23 °C | 7 d* | 3 | vol. % |
| Shrinkage<br>*DELO Standard 13 | 80 °C | 1 h* | 3 | vol. % |
| Water absorption<br>*Based on DIN EN ISO 62 | Layer thickness: 4 mm | at approx. +23 °C | 168 h | Type of storage: Media | Medium: Distilled water | Storage temperature: at approx. +23 °C | Duration: 24 h* | 0.15 | wt. % |
| Decomposition temperature<br>*DELO Standard 36 | at approx. +23 °C | 7 d* | 294 | °C |

Compression shear strength after media storage for 1000 h



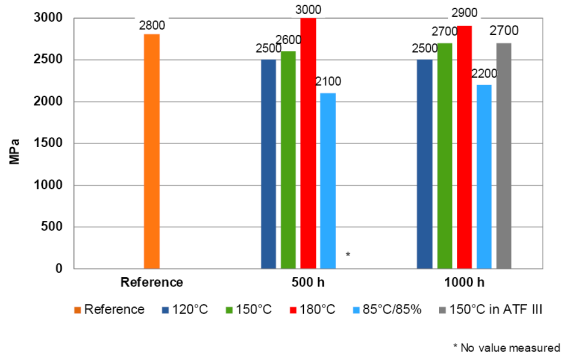

DELO Standard 5

Tensile shear strength for determining the curing process
Substrates: Al/Al, based on DIN EN 1465



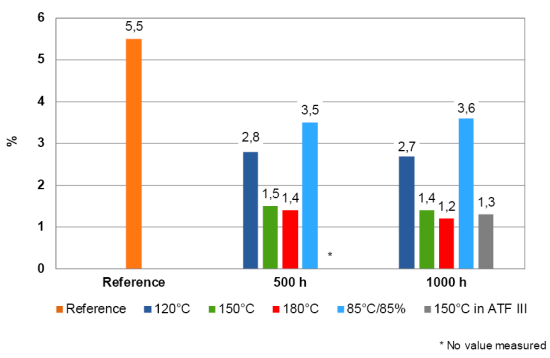

at room temperature (approx. +23 °C)

Young's Modulus after temperature storage / based on DIN EN ISO 527
curing: 1h at +80°C



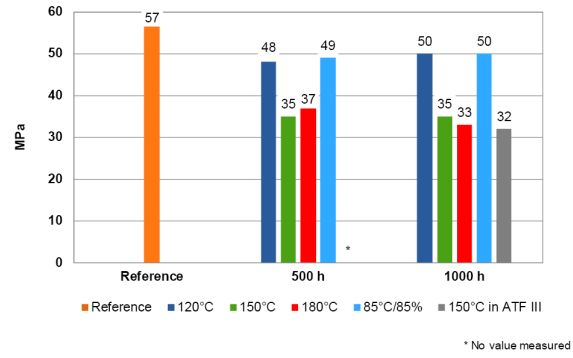

* No value measured

Elongation at tear after temperature storage / based on DIN EN ISO 527
curing: 1h at +80°C



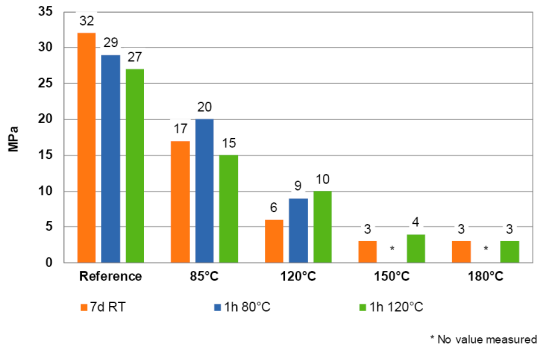

* No value measured

Tensile strength after temperature storage / based on DIN EN ISO 527
curing: 1h at +80°C



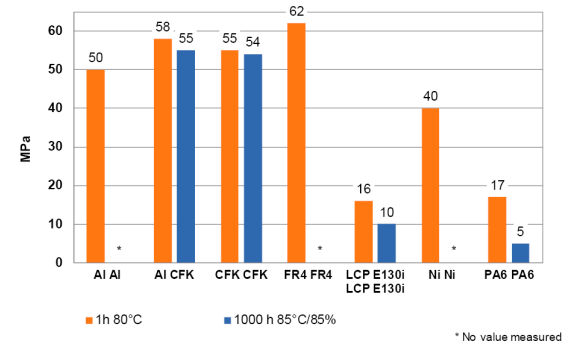

* No value measured

Tensile shear strength at temperature / based on DIN EN 1465



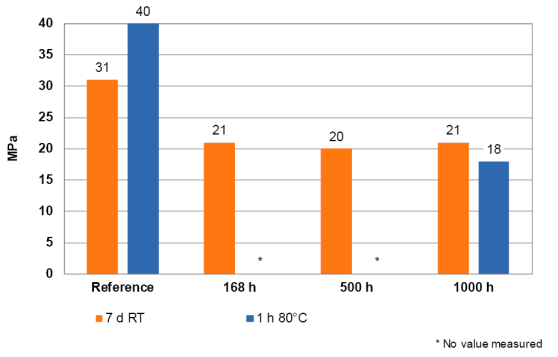

* No value measured

Compression shear strength on different substrates / based on DELO standard 5
curing: 1h at +80°C

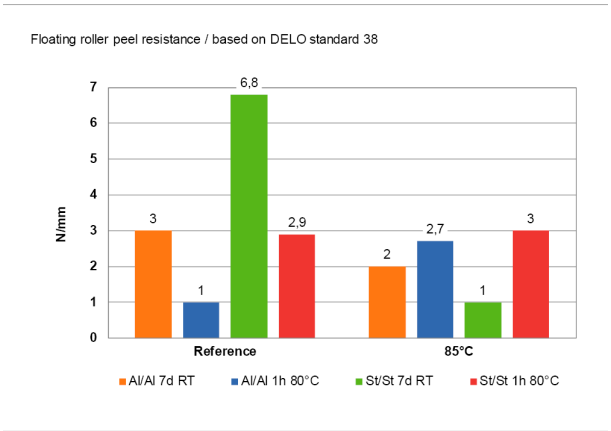



* No value measured

Compression shear strength on Ni after 85 °C / 85 % r.h. storage




* No value measured




## 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.Curing can be supported or accelerated by heat input. Additional heat input can change the physical properties of the product.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.