# DELO®-PUR 9694

**polyurethane | 2C | room-temperature-curing**

pasty, filled | flow-resistant, suitable for side-by-side cartridges, very good media resistance

### Special features of product

- compliant with RoHS Directive 2015/863/EU
- compliant with limits of VOC content in adhesive acc. to GB33372-2020
- passes ANSI/UL 94 HB Flame Test
- Component B is humidity-sensitive

### Typical area of use

- -40 - 125 °C
- glass/metal bondings
- mixed bondings with plastics

## Curing

Curing time

| | | |
|---|---|---|
| *until initial strength<br>at rt approx. +23 °C<br>tensile shear strength 1 - 2 MPa* | 2 | h |
| *until functional strength<br>at rt approx. +23 °C<br>tensile shear strength > 10 MPa* | 8 | h |
| *until final strength<br>at rt approx. +23 °C* | 72 | h |
| *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* | 30 | min |
| *until final strength<br>at +80 °C* | 40 | min |

## Processing

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

Processing time after mixing

| | | |
|---|---|---|
| *in 100 g batch<br>at rt approx. +23 °C* | 7 | min |

| | | |
|---|---|---|
| Storage life in unopened original container | | |
| *at +15 °C to +30 °C* | 6 | month(s) |

## Technical properties

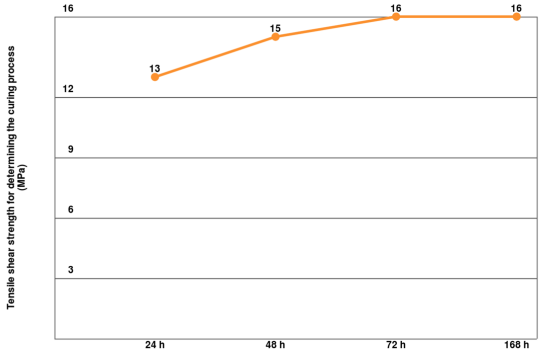
| | | |
|---|---|---|
| Color in uncured condition | black | |
| Filler particle type | minerals | |
| Density of component A | 1.47 | g/cm³ |
| Density of component B | 1.43 | g/cm³ |

## Parameters

| | | |
|---|---|---|
| Tensile shear strength<br>*Based on DIN EN 1465 | **Al** | **Al** | Pretreatment: sand-blasted | at approx. +23 °C | 7 d | Measuring temperature: 100 °C* | 4 | MPa |
| Tensile shear strength<br>*Based on DIN EN 1465 | **Al** | **Al** | Pretreatment: sand-blasted | at approx. +23 °C | 72 h* | 16 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **ABS** | **ABS** | at approx. +23 °C | 7 d* | 8 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **CFRP** | **CFRP** | at approx. +23 °C | 7 d* | 19 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **FR4** | **FR4** | Pretreatment: Annealing | at approx. +23 °C | 7 d* | 26 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **PA6** | **PA6** | Pretreatment: Annealing | at approx. +23 °C | 7 d* | 11 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **PBT** | **PBT** | at approx. +23 °C | 7 d* | 14 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **PC** | **PC** | at approx. +23 °C | 7 d* | 18 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **PETP** | **PETP** | at approx. +23 °C | 7 d* | 15 | MPa |
| Compression shear strength<br>*DELO Standard 5 | **PMMA** | **PMMA** | at approx. +23 °C | 7 d* | 12 | MPa |

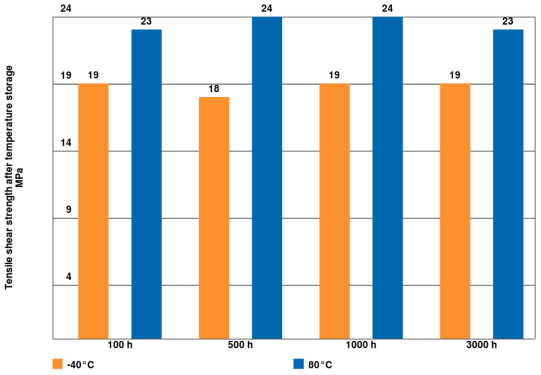
| | | |
|---|---|---|
| Peel resistance<br>*DELO Standard 38 \| **Steel** \| **Steel** \| Pretreatment: sand-blasted \| at approx. +23 °C \| 7 d* | 8 | N/mm |
| Tensile strength<br>*Based on DIN EN ISO 527 \| at approx. +23 °C \| 7 d* | 10 | MPa |
| Elongation at tear<br>*Based on DIN EN ISO 527 \| at approx. +23 °C \| 7 d* | 60 | % |
| Young's modulus<br>*Based on DIN EN ISO 527 \| at approx. +23 °C \| 7 d* | 100 | MPa |
| Shore hardness A<br>*Based on DIN EN ISO 868 \| at approx. +23 °C \| 7 d* | 90 | |
| Shore hardness D<br>*Based on DIN EN ISO 868 \| at approx. +23 °C \| 7 d* | 50 | |
| Glass transition temperature<br>*DELO Standard 24 \| Rheometer* | 40 | °C |
| Coefficient of linear expansion<br>*DELO Standard 26 \| TMA \| Evaluation T: 30 °C - 140 °C* | 167 | ppm/K |
| Shrinkage<br>*DELO Standard 13* | 5 | vol. % |
| Water absorption<br>*Based on DIN EN ISO 62 \| Layer thickness: 4 mm \| Type of storage: Media \| Medium: Distilled water \| Storage temperature: at approx. +23 °C \| Duration: 24 h* | 0.3 | wt. % |
| Decomposition temperature<br>*DELO Standard 36* | 183 | °C |
| Volume resistivity | >1xE12 | Ohm·cm |
| Surface resistance<br>*Based on DIN EN 62631-3-2* | >1xE13 | Ohm |
| Dielectric strength<br>*Based on DIN EN 60243-1* | 17.7 | kV/mm |
| Creep resistance CTI M<br>*Based on DIN EN 60112* | 600 | |

Substrates: Al/Al, based on DIN EN 1465



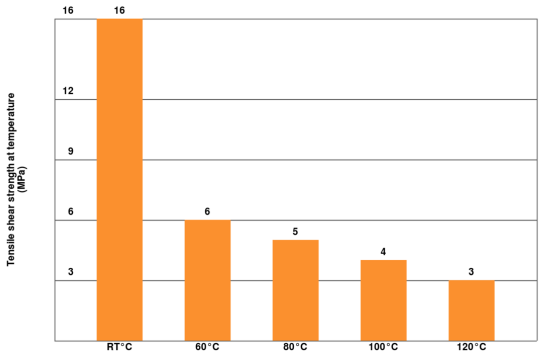

at roomtemperature (approx. 23 °C)

Tensile shear strength after temperature storage / based on DIN EN 1465



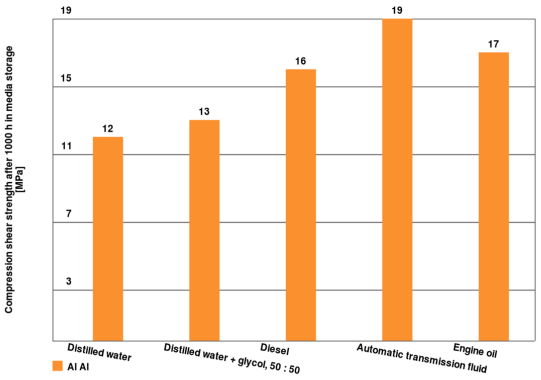

Substrates: Al / Al

Tensile shear strength measured at stated temperatures

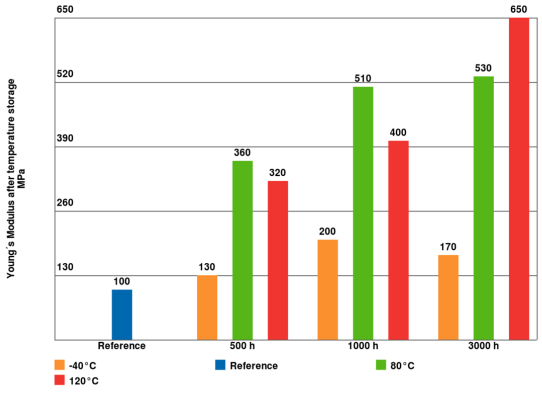



Substrates: Al / Al

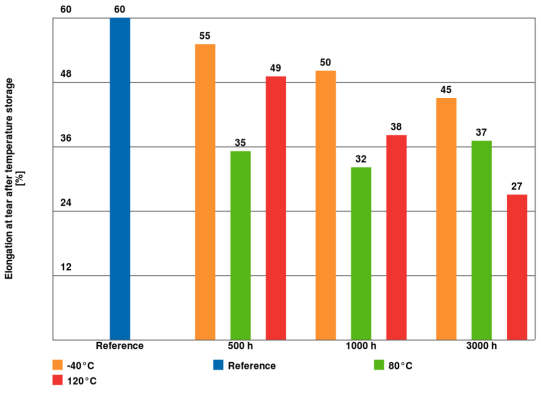
Media resistance after 1000 h



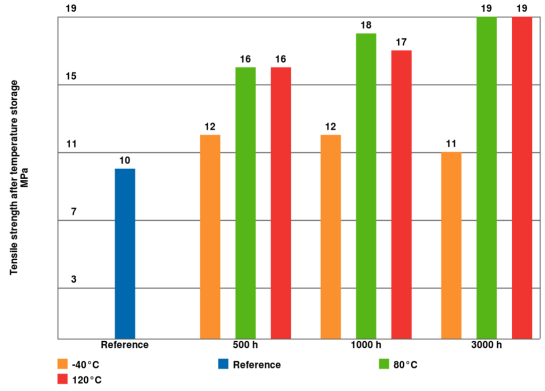

Young´s Modulus after temperature storage / based on DIN EN ISO 527




Elongation at tear after temperature storage / based on DIN EN ISO 527



Tensile strength after temperature storage / based on DIN EN ISO 527




## 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.Unless otherwise specified, the values were measured after 168 h at approx. 23 °C / 50 % r. h., and the values of heat-cured samples were measured after 24 h at approx. 23 °C / 50 % r. h.

## 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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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.