

# DELO<sup>®</sup>-PUR 9694

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

pasty, filled | flow-resistant, suitable for DELO-AUTOMIX, very good media resistance

### Special features of product

- compliant with RoHS Directive 2015/863/EU
- 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

<i>until initial strength at rt approx. +23 °C tensile shear strength 1 - 2 MPa</i>	2	h
<i>until functional strength at rt approx. +23 °C tensile shear strength &gt; 10 MPa</i>	8	h
<i>until final strength at rt approx. +23 °C</i>	72	h
<i>until initial strength at +80 °C tensile shear strength 1 - 2 MPa</i>	5	min
<i>until functional strength at +80 °C tensile shear strength &gt; 10 MPa</i>	30	min
<i>until final strength at +80 °C</i>	40	min

### Processing

Mixing ratio A : B - volume	1 : 1
Mixing ratio A : B - weight	1 : 1
Processing time after mixing	
<i>in 100 g batch at rt approx. +23 °C</i>	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/cm <sup>3</sup>
Density of component B	1.43 g/cm <sup>3</sup>

**Parameters**

Tensile shear strength 4 MPa  
*Based on DIN EN 1465 | **AI** | **AI** | Pretreatment: sand-blasted | at approx. +23 °C | 7 d | Measuring temperature: 100 °C*

Tensile shear strength 16 MPa  
*Based on DIN EN 1465 | **AI** | **AI** | Pretreatment: sand-blasted | at approx. +23 °C | 72 h*

Compression shear strength 26 MPa  
*DELO Standard 5 | **FR4** | **FR4** | Pretreatment: Annealing | at approx. +23 °C | 7 d*

Compression shear strength 11 MPa  
*DELO Standard 5 | **PA6** | **PA6** | Pretreatment: Annealing | at approx. +23 °C | 7 d*

Compression shear strength 12 MPa  
*DELO Standard 5 | **PMMA** | **PMMA** | at approx. +23 °C | 7 d*

Compression shear strength 14 MPa  
*DELO Standard 5 | **PBT** | **PBT** | at approx. +23 °C | 7 d*

Compression shear strength 15 MPa  
*DELO Standard 5 | **PETP** | **PETP** | at approx. +23 °C | 7 d*

Compression shear strength 19 MPa  
*DELO Standard 5 | **CFRP** | **CFRP** | at approx. +23 °C | 7 d*

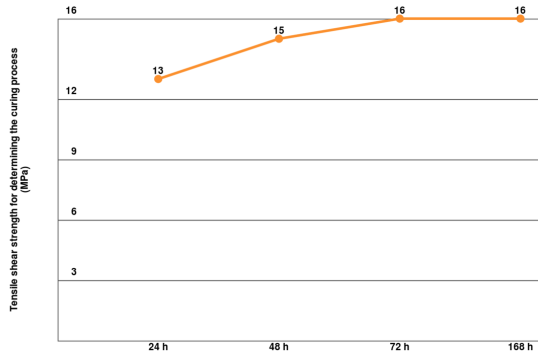
Compression shear strength 18 MPa  
*DELO Standard 5 | **PC** | **PC** | at approx. +23 °C | 7 d*

<p>Compression shear strength  <i>DELO Standard 5   <b>ABS</b>   <b>ABS</b>   at approx. +23 °C   7 d</i></p>	8	MPa
<p>Peel resistance  <i>DELO Standard 38   <b>Steel</b>   <b>Steel</b>   Pretreatment: sand-blasted   at approx. +23 °C   7 d</i></p>	8	N/mm
<p>Tensile strength  <i>Based on DIN EN ISO 527   at approx. +23 °C   7 d</i></p>	10	MPa
<p>Elongation at tear  <i>Based on DIN EN ISO 527   at approx. +23 °C   7 d</i></p>	60	%
<p>Young's modulus  <i>Based on DIN EN ISO 527   at approx. +23 °C   7 d</i></p>	100	MPa
<p>Shore hardness A  <i>Based on DIN EN ISO 868   at approx. +23 °C   7 d</i></p>	90	
<p>Shore hardness D  <i>Based on DIN EN ISO 868   at approx. +23 °C   7 d</i></p>	50	
<p>Glass transition temperature  <i>DELO Standard 24   Rheometer</i></p>	40	°C
<p>Coefficient of linear expansion  <i>DELO Standard 26   TMA   Evaluation T: 30 °C - 140 °C</i></p>	167	ppm/K
<p>Shrinkage  <i>DELO Standard 13</i></p>	5	vol. %
<p>Water absorption  <i>Based on DIN EN ISO 62   Type of storage: Desiccator   Duration: 72 h</i></p>	0.3	wt. %
<p>Decomposition temperature  <i>DELO Standard 36</i></p>	183	°C
<p>Volume resistivity  <i>Based on VDE 0303-30</i></p>	>1xE12	Ohm·cm
<p>Surface resistance  <i>Based on VDE 0303-30</i></p>	>1xE13	Ohm
<p>Dielectric strength  <i>Based on DIN EN 60243-1</i></p>	17.7	kV/mm

Creep resistance CTI M  
Based on DIN IEC 60112

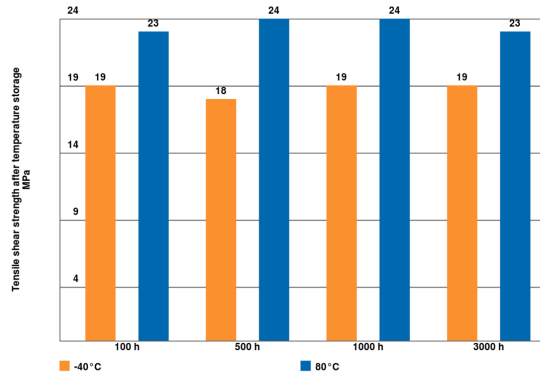
600

Substrates: Al/Al, based on DIN EN 1465



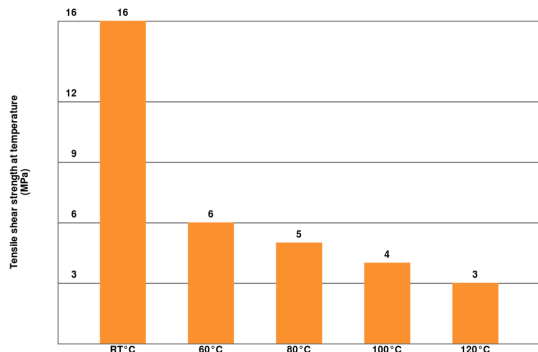
at room temperature (approx. 23°C)

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



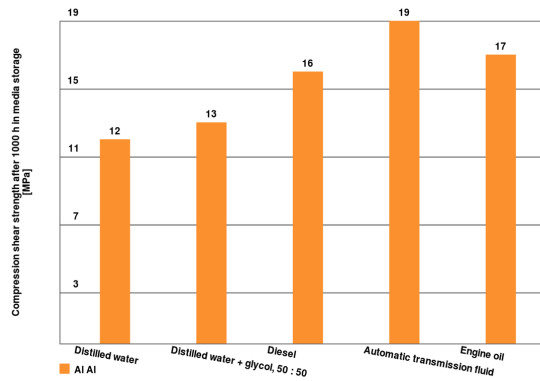
Substrates: Al / Al

Tensile shear strength measured at stated temperatures

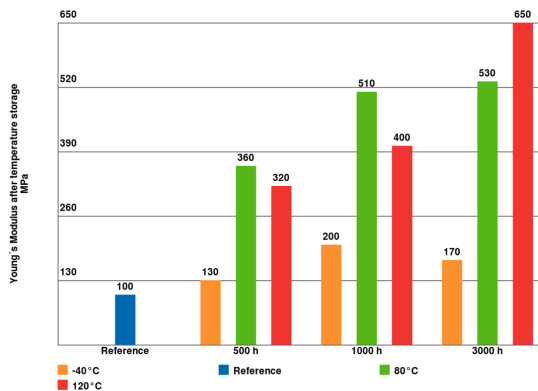


Substrates: Al / Al

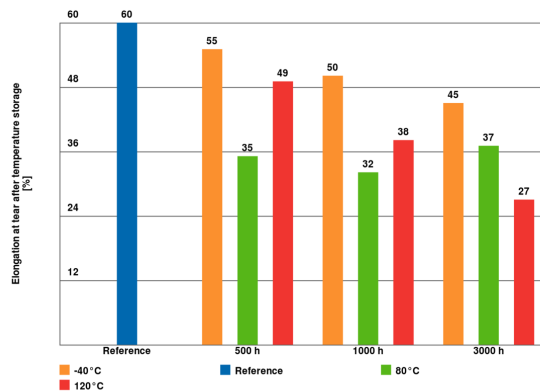
Media resistance after 1000 h



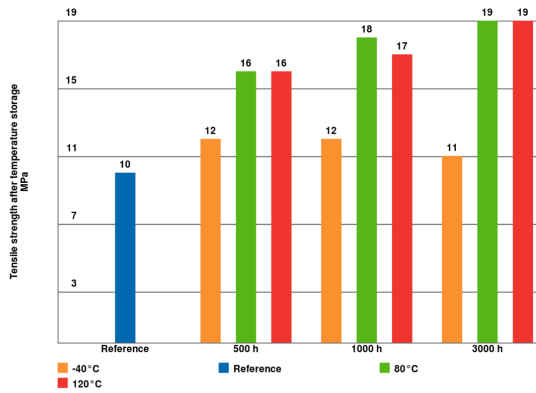
Young's Modulus after temperature storage / based on DIN EN ISO 527



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.

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](http://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.

## CONTACT