

DELO-DUOPOX[®] SJ8665

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

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

Special features of product

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

Function

- structural adhesive

Typical area of use

- 40 - 180 °C
- metal bondings

Curing

Curing time

until initial strength at rt approx. +23 °C tensile shear strength 1 - 2 MPa	3.5	h
until functional strength at rt approx. +23 °C tensile shear strength > 10 MPa	5	h
until final strength at rt approx. +23 °C	168	h
until initial strength at +80 °C tensile shear strength 1 - 2 MPa	5	min
until functional strength at +80 °C tensile shear strength > 10 MPa	10	min
until final strength 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

<i>in 20 g batch at rt approx. +23 °C</i>	15	min
<i>in 100 g batch at rt approx. +23 °C</i>	40	min

Storage life in unopened original container

<i>up to <= 10 l at +18 °C to +25 °C</i>	12	month(s)
<i>from > 10 l at +18 °C to +25 °C</i>	9	month(s)

Technical properties

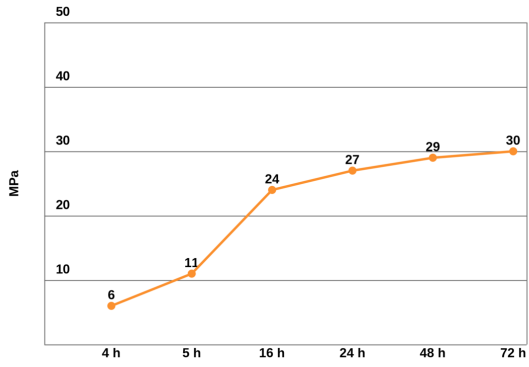
Color in cured condition in 1 mm layer thickness	black
Filler particle type	minerals

Parameters

Density <i>Component A liquid</i>	1.16	g/cm ³
Density <i>Component B liquid</i>	1.41	g/cm ³
Viscosity <i>Component A liquid Rheometer Shear rate: 2 1/s Gap: 500 µm</i>	300000	mPa·s
Viscosity <i>Component B liquid Rheometer Shear rate: 2 1/s Gap: 500 µm</i>	30000	mPa·s
Tensile shear strength <i>by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted at approx. +23 °C 168 h</i>	32	MPa
Tensile shear strength <i>by the criteria of DIN EN 1465 Steel Steel Pretreatment: sand-blasted at approx. +23 °C 168 h</i>	24	MPa
Compression shear strength <i>DELO Standard 5 AI AI Pretreatment: sand-blasted at approx. +23 °C 168 h</i>	30	MPa
Compression shear strength <i>DELO Standard 5 AI AI Pretreatment: sand-blasted 80 °C 1 h</i>	50	MPa
Tensile strength <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 168 h</i>	46	MPa

Tensile strength <i>by the criteria of DIN EN ISO 527 80 °C 1 h</i>	57	MPa
Elongation at tear <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 168 h</i>	3.5	%
Elongation at tear <i>by the criteria of DIN EN ISO 527 80 °C 1 h</i>	5.5	%
Young's modulus <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 168 h</i>	3300	MPa
Young's modulus <i>by the criteria of DIN EN ISO 527 80 °C 1 h</i>	2800	MPa
Shore hardness D <i>by the criteria of DIN EN ISO 868 at approx. +23 °C 168 h</i>	77	
Shore hardness D <i>by the criteria of DIN EN ISO 868 80 °C 1 h</i>	82	
Glass transition temperature <i>DMTA at approx. +23 °C 168 h</i>	126	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 35 °C - 100 °C at approx. +23 °C 168 h</i>	82	ppm/K
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 120 °C - 175 °C at approx. +23 °C 168 h</i>	171	ppm/K
Shrinkage <i>DELO Standard 13 at approx. +23 °C 168 h</i>	3	vol. %
Shrinkage <i>DELO Standard 13 80 °C 1 h</i>	3	vol. %
Water absorption <i>by the criteria of 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</i>	0.15	wt. %
Decomposition temperature <i>DELO Standard 36 at approx. +23 °C 168 h</i>	294	°C

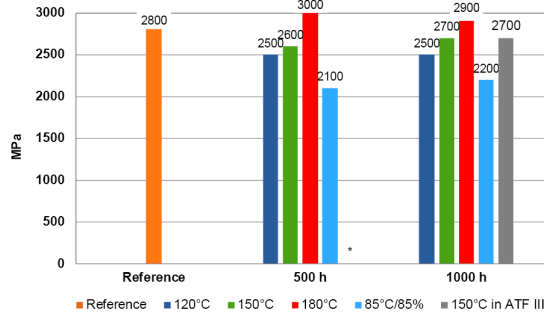
Tensile shear strength for determining the curing process
Substrates: Al/Al, by the criteria of DIN EN 1465



Tensile shear strength for determining the curing process at temperature
Substrates: Al/Al, curing: 80 °C, by the criteria of DIN EN 1465

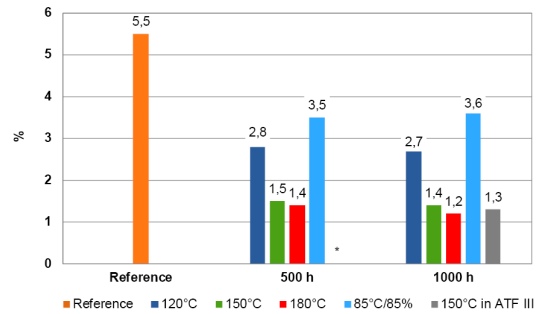


Young's Modulus after temperature storage, by the criteria of DIN EN ISO 527
Curing: 1h +80°C



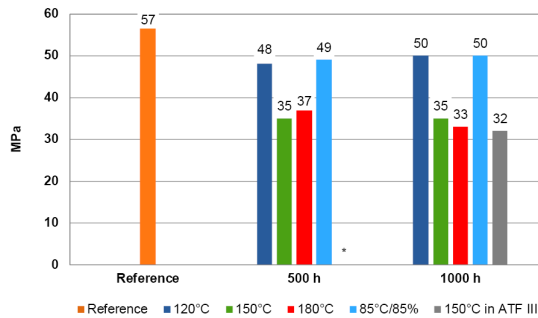
* No value measured

Elongation at tear after temperature storage, by the criteria of DIN EN ISO 527
Curing: 1h +80°C



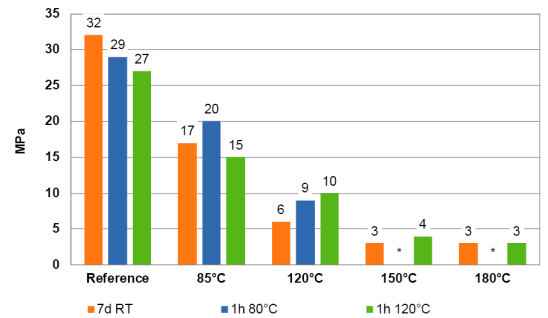
* No value measured

Tensile strength after temperature storage, by the criteria of DIN EN ISO 527
Curing: 1h +80°C



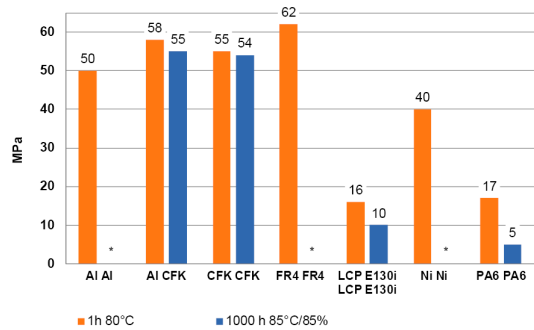
* No value measured

Tensile shear strength measured at the stated temperatures
Substrates: Al/Al, by the criteria of DIN EN 1465



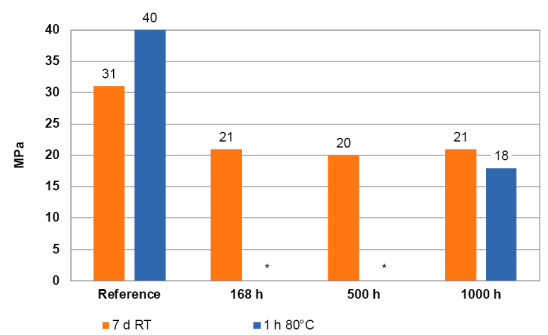
* No value measured

Compression shear strength on different substrates, DELO Standard 5
curing: 1h +80°C



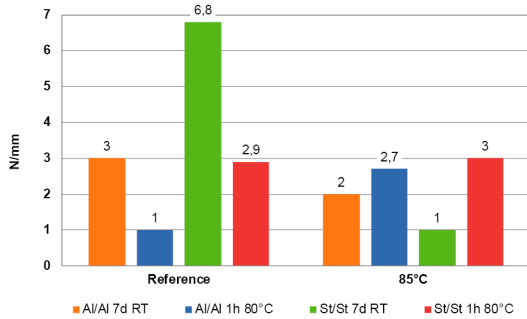
* No value measured

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

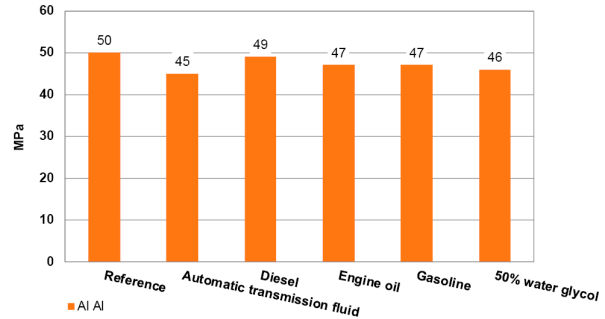


* No value measured

Floating roller peel resistance, DELO standard 38



Compression shear strength after media storage for 1000 h, DELO Standard 5 curing: 1h +80°C



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.

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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

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.

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