

DELO-DUOPOX CR8021

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

unfilled | flowable, suitable for DELO-AUTOMIX

Special features of product

- compliant with RoHS Directive 2015/863/EU
- Long-term annealing of components A and B up to max. +40 °C
- Any formation of bubbles during homogenization or mixing can be significantly minimized by using a processing system with vacuum unit

Function

- electronic adhesive

Typical area of use

- 40 - 140 °C

Curing

Curing time

until initial strength at rt approx. +23 °C tensile shear strength 1 - 2 MPa	5.5	h
until functional strength at rt approx. +23 °C tensile shear strength > 10 MPa	48	h
until final strength at rt approx. +23 °C	72	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	15	min

Processing

Mixing ratio A : B - volume	0.5 : 1
Mixing ratio A : B - weight	0.58 : 1

Processing time after mixing

in 100 g batch 60 min
at rt approx. +23 °C

Reaction temperature (max.)

in 100 g batch 87 °C

Storage life in unopened original container

at +15 °C to +30 °C 12 month(s)

Technical properties

Color in cured condition in 1 mm layer thickness yellowish

Transparency in cured condition in 1 mm layer thickness translucent

Parameters

Density of component A 1.18 g/cm³
DELO Standard 13 | Liquid

Density of component B 1.03 g/cm³
DELO Standard 13 | Liquid

Viscosity of component A 34000 mPa·s
Liquid | Rheometer | Shear rate: 2 1/s | Gap: 37 µm

Viscosity of component B 10000 mPa·s
Liquid | Rheometer | Shear rate: 2 1/s | Gap: 37 µm

Tensile shear strength 11 MPa
Based on DIN EN 1465 | Al | Al | Pretreatment: sand-blasted | at approx. +23 °C | 168 h

Tensile shear strength 12 MPa
Based on DIN EN 1465 | Steel | Steel | Pretreatment: sand-blasted | at approx. +23 °C | 7 d

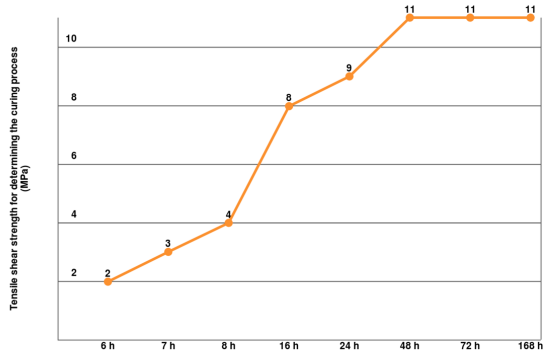
Peel resistance 3 N/mm
DELO Standard 38 | Steel | Steel | Pretreatment: sand-blasted | at approx. +23 °C | 7 d

Tensile strength 9 MPa
Based on DIN EN ISO 527 | at approx. +23 °C | 7 d

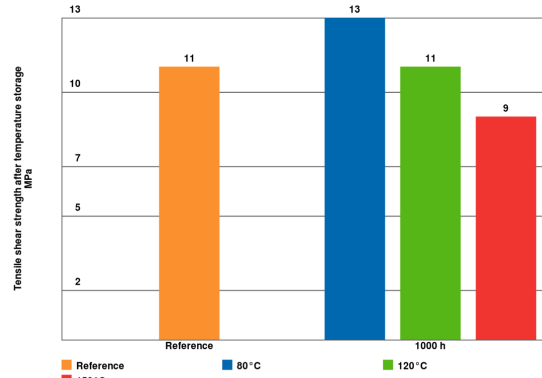
Elongation at tear <i>Based on DIN EN ISO 527 at approx. +23 °C 7 d</i>	35	%
Young's modulus <i>Based on DIN EN ISO 527 at approx. +23 °C 7 d</i>	100	MPa
Shore hardness D <i>Based on DIN EN ISO 868 at approx. +23 °C 7 d</i>	47	
Glass transition temperature <i>DMTA at approx. +23 °C 7 d</i>	47	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 30 °C - 150 °C at approx. +23 °C 7 d</i>	250	ppm/K
Shrinkage <i>DELO Standard 13 at approx. +23 °C 7 d</i>	3	vol. %
Water absorption <i>Based on DIN EN ISO 62 at approx. +23 °C 7 d Type of storage: Desiccator Duration: 72 h</i>	0.5	wt. %
Decomposition temperature <i>DELO Standard 36</i>	277	°C
Relative permittivity <i>Based on RF-IV 1.00 MHz</i>	3.5	
Relative permittivity <i>Based on RF-IV 100.00 MHz</i>	3.2	
Relative permittivity <i>Based on RF-IV 10.00 MHz</i>	3.5	
Relative permittivity <i>Based on RF-IV 1.00 GHz</i>	3.0	
Kriechstromfestigkeit CTI <i>Based on DIN EN 60112</i>	600	

Substrates: Al/Al, based on DIN EN 1465

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



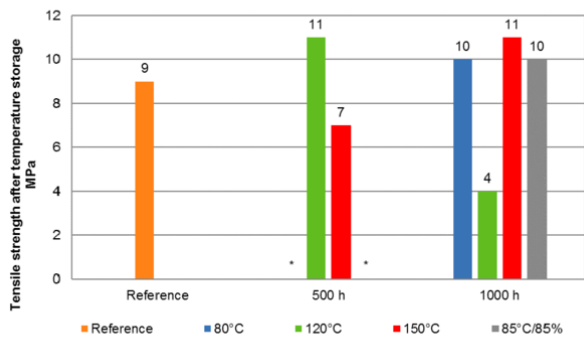
at room temperature (approx. 23°C)



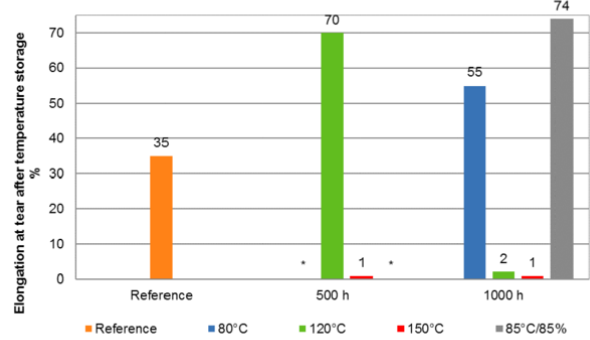
Substrates: Al / Al

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

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

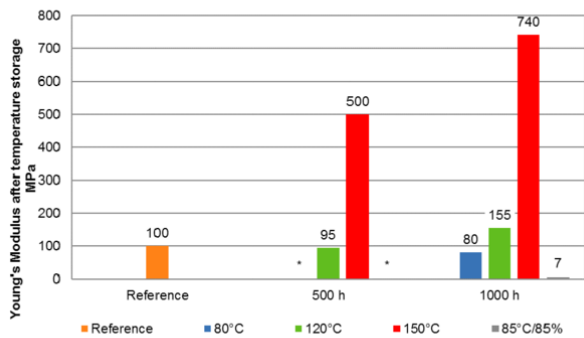


* No value measured.



* No value measured.

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



* 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.

All curing or light fixation parameters depend on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer.

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

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

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CONTACT

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ADHESIVES

DISPENSING

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