DELO-DUOPOX® CR8021

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

unfilled | flowable, suitable for side-by-side cartridges, very good media resistance, tension-equalizing

Special features of product

- compliant with RoHS Directive 2015/863/EU
- Long-term preheating of components is possible
- Any formation of bubbles during homogenization or mixing can be significantly minimized by using a processing system with vacuum unit

Function

- encapsulant / potting compound
- electronic encapsulant

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 *at rt approx. +23 °C*	60	min

Storage life in unopened original container		
at +15 °C to +30 °C	12	month(s)

Technical properties

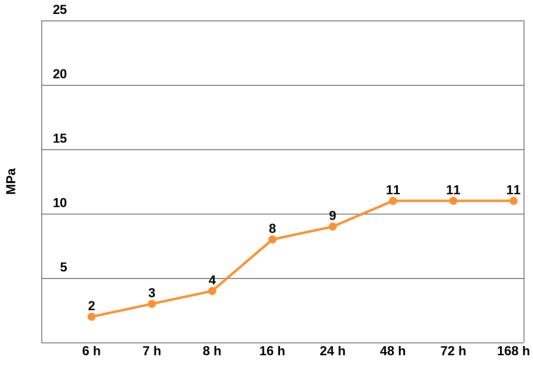
Color in cured condition in 1 mm layer thickness	yellowish	
Transparency in cured condition in 1 mm layer thickness	translucent	

Parameters

Density *Component A | liquid*	1.18	g/cm³
Density *Component B | liquid*	1.03	g/cm³
Viscosity *Component A | liquid | Rheometer | Shear rate: 2 1/s | Gap: 37 µm*	34000	mPa·s
Viscosity *Component B | liquid | Rheometer | Shear rate: 2 1/s | Gap: 37 µm*	10000	mPa·s
Tensile shear strength *by the criteria of DIN EN 1465 | **Al** | **Al** | Pretreatment: sand-blasted | at approx. +23 °C | 168 h*	11	MPa
Tensile shear strength *by the criteria of DIN EN 1465 | **Steel** | **Steel** | Pretreatment: sand-blasted | at approx. +23 °C | 7 d*	12	MPa
Peel resistance *DELO Standard 38 | **Steel** | **Steel** | Pretreatment: sand-blasted | at approx. +23 °C | 7 d*	3	N/mm
Tensile strength *by the criteria of DIN EN ISO 527 | at approx. +23 °C | 7 d*	9	MPa
Elongation at tear *by the criteria of DIN EN ISO 527 | at approx. +23 °C | 7 d*	35	%
Young's modulus *by the criteria of DIN EN ISO 527 | at approx. +23 °C | 7 d*	100	MPa
Shore hardness D *by the criteria of DIN EN ISO 868 | at approx. +23 °C | 7 d*	47	
Glass transition temperature *DMTA | at approx. +23 °C | 7 d*	47	°C

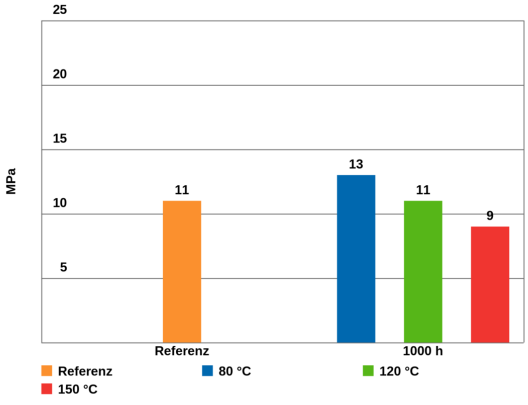
Coefficient of linear expansion *DELO Standard 26 | TMA | Evaluation T: 30 °C - 150 °C | at approx. +23 °C | 7 d*	250	ppm/K
Shrinkage *DELO Standard 13 | at approx. +23 °C | 7 d*	3	vol. %
Water absorption *by the criteria of DIN EN ISO 62 | Layer thickness: 4 mm | at approx. +23 °C | 7 d | Type of storage: Media | Medium: Distilled water | Storage temperature: at approx. +23 °C | Duration: 24 h*	0.5	wt. %
Decomposition temperature *DELO Standard 36 | at approx. +23 °C | 7 d*	277	°C
Creep resistance CTI *by the criteria of DIN EN 60112*	600	
Relative permittivity *by the criteria of RF-IV | 1 MHz*	3.5	
Relative permittivity *by the criteria of RF-IV | 1 GHz*	3.0	
Relative permittivity *by the criteria of RF-IV | 10 MHz*	3.5	
Relative permittivity *by the criteria of RF-IV | 100 MHz*	3.2	

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



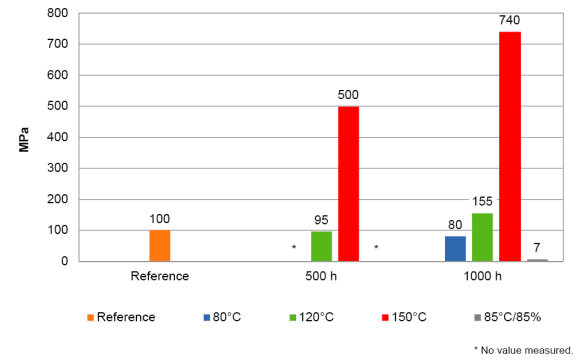
at room temperature (approx. +23 °C)

Tensile shear strength after thermal storage, by the criteria of DIN EN 1465



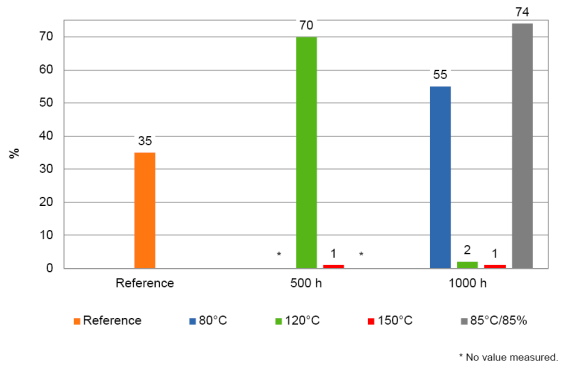
Substrates: Al/ Al

Young's Modulus after temperature storage / by the criteria of DIN EN ISO 527



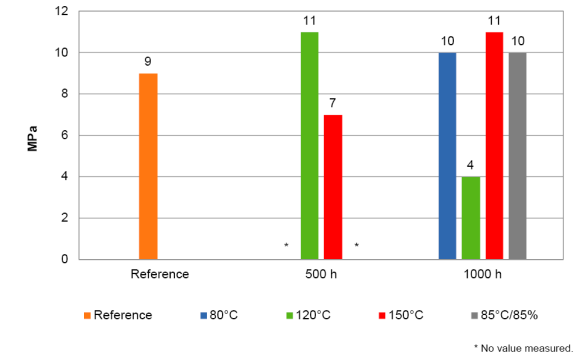
* No value measured.

Elongation at tear after temperature storage / by the criteria of DIN EN ISO 527



* No value measured.

Tensile strength after temperature storage / by the criteria of 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.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

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