

DELO-DUOPOX[®] AD840

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

filled, thixotropic | suitable for side-by-side cartridges, very good media resistance

Special features of product

- compliant with RoHS Directive 2015/863/EU
- tested for biocompatibility and meets the requirements according to DIN EN ISO 10993-5: test for cytotoxicity
- compliant with limits of VOC content in adhesive acc. to GB33372-2020

Function

- construction adhesive

Typical area of use

- -40 - 150 °C

Curing

Curing time

<i>until initial strength at rt approx. +23 °C tensile shear strength 1 - 2 MPa</i>	7	h
<i>until functional strength at rt approx. +23 °C tensile shear strength > 10 MPa</i>	16	h
<i>until final strength at rt approx. +23 °C</i>	168	h
<i>until initial strength at +80 °C tensile shear strength 1 - 2 MPa</i>	13	min
<i>until functional strength at +80 °C tensile shear strength > 10 MPa</i>	20	min
<i>until final strength at +80 °C</i>	1	h

Processing

Mixing ratio A : B - volume	1 : 1
Mixing ratio A : B - weight	0.88 : 1

Processing time after mixing

*in 100 g batch
at rt approx. +23 °C* 90 min

Storage life in unopened original container

at +18 °C to +25 °C 12 month(s)

Technical properties

Color in cured condition in 1 mm layer thickness gray

Transparency in cured condition in 1 mm layer thickness opaque

Filler particle type minerals

Parameters

Density 1.18 g/cm³
Component A | liquid

Density 1.33 g/cm³
Component B | liquid

Viscosity 110000 mPa·s
Component A | liquid | Rheometer | Shear rate: 2 1/s | Gap: 500 µm

Viscosity 125000 mPa·s
Component B | liquid | Rheometer | Shear rate: 2 1/s | Gap: 500 µm

Tensile shear strength 5 MPa
*by the criteria of DIN EN 1465 | **AI** | **AI** | Pretreatment: sand-blasted | at approx. +23 °C | 7 d | Measuring temperature: 100 °C*

Tensile shear strength 4 MPa
*by the criteria of DIN EN 1465 | **AI** | **AI** | Pretreatment: sand-blasted | at approx. +23 °C | 7 d | Measuring temperature: 120 °C*

Tensile shear strength 22 MPa
*by the criteria of DIN EN 1465 | **AI** | **AI** | Pretreatment: sand-blasted | at approx. +23 °C | 168 h*

Tensile shear strength 22 MPa
*by the criteria of DIN EN 1465 | **Steel** | **Steel** | Pretreatment: sand-blasted | at approx. +23 °C | 7 d*

Compression shear strength 7.5 MPa
*DELO Standard 5 | **ABS** | **ABS** | at approx. +23 °C | 7 d*

Compression shear strength <i>DELO Standard 5 Al Al at approx. +23 °C 7 d</i>	26	MPa
Compression shear strength <i>DELO Standard 5 Stainless steel Stainless steel at approx. +23 °C 7 d</i>	30	MPa
Compression shear strength <i>DELO Standard 5 Glass Glass at approx. +23 °C 7 d</i>	29	MPa
Compression shear strength <i>DELO Standard 5 PA6 PA6 Pretreatment: Annealing at approx. +23 °C 7 d</i>	17	MPa
Compression shear strength <i>DELO Standard 5 PC-ABS PC-ABS at approx. +23 °C 7 d</i>	13	MPa
Peel resistance <i>DELO Standard 38 Steel Steel Pretreatment: sand-blasted at approx. +23 °C 7 d</i>	6	N/mm
Tensile strength <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 7 d</i>	30	MPa
Elongation at tear <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 7 d</i>	6	%
Young's modulus <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 7 d</i>	1700	MPa
Shore hardness D <i>by the criteria of DIN EN ISO 868 at approx. +23 °C 7 d</i>	76	
Glass transition temperature <i>DELO Standard 24 Rheometer at approx. +23 °C 7 d</i>	69	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 30 °C - 50 °C</i>	100	ppm/K
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 30 °C - 150 °C</i>	160	ppm/K
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 90 °C - 150 °C</i>	186	ppm/K
Shrinkage <i>DELO Standard 13 at approx. +23 °C 7 d</i>	3	vol. %
Water absorption <i>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</i>	0.18	wt. %

Decomposition temperature 280 °C
DELO Standard 36 | at approx. +23 °C | 7 d

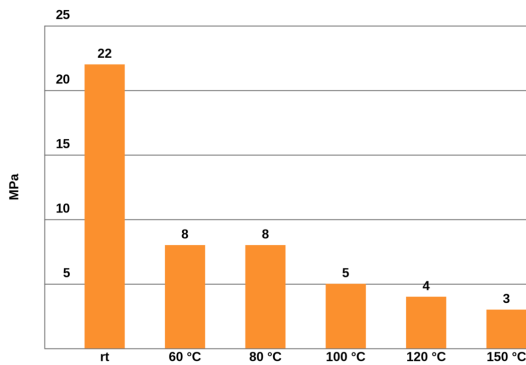
Volume resistivity 3.9xE14 Ohm·cm
by the criteria of DIN EN 62631-3-1

Surface resistance 2.6xE14 Ohm
by the criteria of DIN EN 62631-3-2

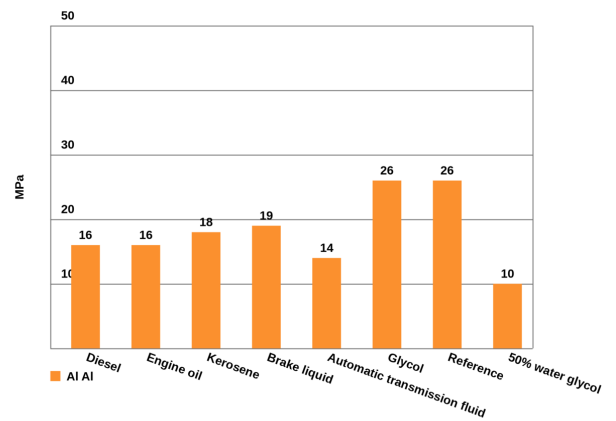
Dielectric strength 25 kV/mm
by the criteria of DIN EN 60243-1

Creep resistance CTI M 600
by the criteria of DIN EN 60112

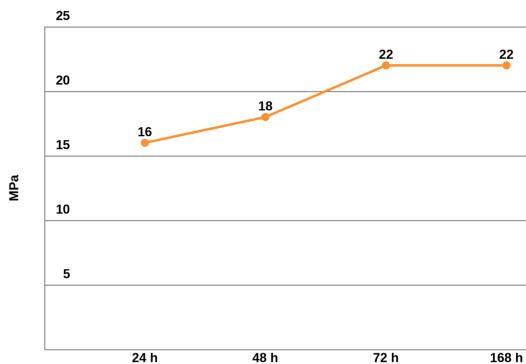
Tensile shear strength measured at the stated temperatures
 Substrates: Al/Al, by the criteria of DIN EN 1465



Compression shear strength after media storage for 1000 h, DELO Standard 5



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



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

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CONTACT

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ADHESIVES

DISPENSING

CURING

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