

DELO-DUOPOX[®] AB8390

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

colorfast, suitable for side-by-side cartridges, filled, thixotropic, pasty

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
- qualified and approved by Airbus according to AIMS 10-04-001
- CS/FAR Part 25 §25.853(a)(1)(ii) Amdt. 15/ Amdt. 25-116 & ABD0031 (Resistance of Material to Flame, 12s Vertical Bunsen Burner Test);
- CS/FAR Part 25 §25.853(d) Amdt. 15/ Amdt. 25-116 & ABD0031 (Specific Optical Density of Smoke);
- ABD0031 (Toxic Components on Combustion Products)

Function

- construction adhesive

Typical area of use

- bondings in aircraft interiors

Curing

Curing time

<i>until initial strength at rt approx. +23 °C tensile shear strength 1 - 2 MPa</i>	5	h
<i>until functional strength at rt approx. +23 °C tensile shear strength > 10 MPa</i>	12	h
<i>until final strength at rt approx. +23 °C</i>	168	h
<i>until final strength at +60 °C</i>	2	h

Processing

Mixing ratio A : B - volume	1 : 1
Mixing ratio A : B - weight	1.2 : 1

Processing time after mixing

in 50 g batch at rt approx. +23 °C DELO Standard 52	1	h
in 100 g batch at rt approx. +23 °C DELO Standard 51	30	min

Storage life in unopened original container

up to <= 500 ml at +18 °C to +25 °C	9	month(s)
at +18 °C to +25 °C	12	month(s)

Technical properties

Color in cured condition in 1 mm layer thickness	white
Transparency in cured condition in 1 mm layer thickness	opaque
Filler particle type	organic

Parameters

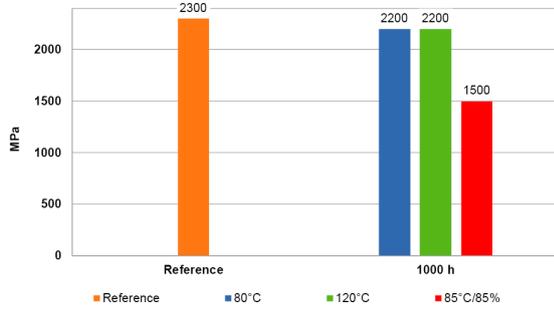
Density Component A liquid	1.41	g/cm ³
Density Component B liquid	1.21	g/cm ³
Viscosity liquid Rheometer Shear rate: 2 1/s Gap: 200 µm	160.000	mPa·s
Tensile shear strength by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted at approx. +23 °C 168 h	24	MPa
Tensile shear strength by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted at approx. +23 °C 168 h Measuring temperature: 85 °C	5	MPa
Tensile shear strength by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted 60 °C 2 h	25	MPa
Tensile shear strength by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted 65 °C 2 h Plus at approx. +23 °C 24 h Measuring temperature: 85 °C	6	MPa

<p>Compression shear strength <i>DELO Standard 5 AI AI at approx. +23 °C 168 h</i></p>	33	MPa
<p>Compression shear strength <i>DELO Standard 5 AI AI Pretreatment: sand-blasted at approx. +23 °C 168 h</i></p>	36	MPa
<p>Compression shear strength <i>DELO Standard 5 PA6 PA6 Pretreatment: Annealing at approx. +23 °C 168 h</i></p>	19	MPa
<p>Compression shear strength <i>DELO Standard 5 PC PC at approx. +23 °C 168 h</i></p>	23	MPa
<p>Peel resistance <i>by the criteria of DIN EN 2243-2 AI AI Pretreatment: sand-blasted at approx. +23 °C 168 h</i></p>	4	N/mm
<p>Peel resistance <i>by the criteria of DIN EN 2243-2 AI AI Pretreatment: sand-blasted 60 °C 2 h</i></p>	4	N/mm
<p>Peel resistance <i>DELO Standard 38 Steel Steel Pretreatment: sand-blasted at approx. +23 °C 168 h</i></p>	5	N/mm
<p>Tensile strength <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 168 h</i></p>	36	MPa
<p>Elongation at tear <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 168 h</i></p>	4	%
<p>Young's modulus <i>by the criteria of DIN EN ISO 527 at approx. +23 °C 168 h</i></p>	2300	MPa
<p>Shore hardness D <i>by the criteria of DIN EN ISO 868 at approx. +23 °C 168 h</i></p>	73	
<p>Glass transition temperature <i>DMTA at approx. +23 °C 168 h</i></p>	92	°C
<p>Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 30 °C - 55 °C at approx. +23 °C 168 h</i></p>	93	ppm/K
<p>Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 75 °C - 175 °C at approx. +23 °C 168 h</i></p>	171	ppm/K
<p>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></p>	0.16	wt. %
<p>Decomposition temperature <i>DELO Standard 36 at approx. +23 °C 168 h</i></p>	270	°C

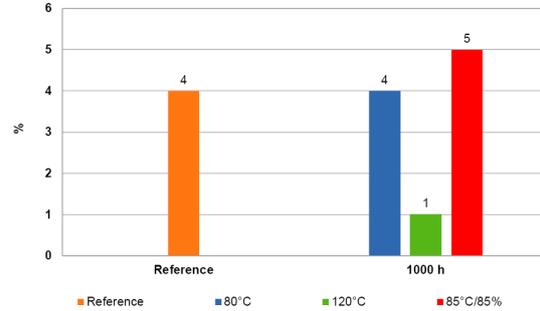
Tensile shear strength for determining the curing process
Substrates: Al/Al, by the criteria of DIN EN 1465



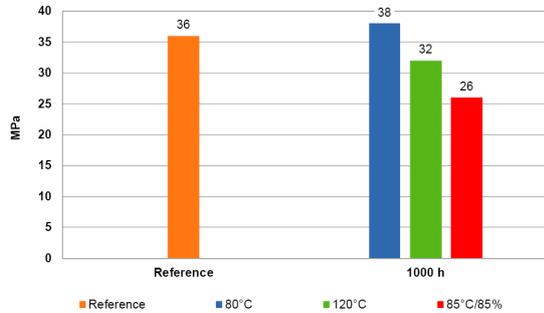
Young's Modulus after temperature storage / based on DIN EN ISO 527



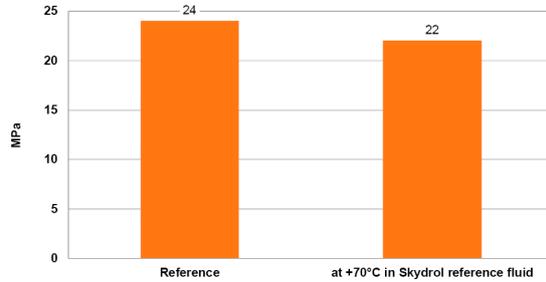
Elongation at tear after temperature storage, by the criteria of DIN EN ISO 527



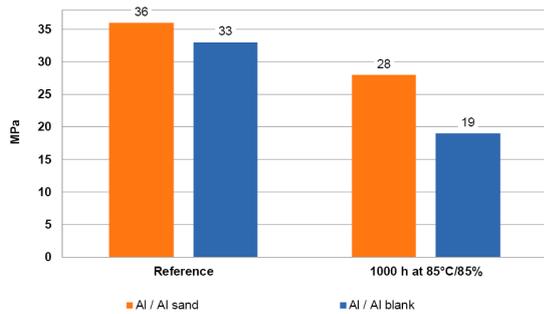
Tensile strength after temperature storage, by the criteria of DIN EN ISO 527



Tensile shear strength after media storage for 500 h



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



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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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.

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

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ADHESIVES

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