

DELO-DUOPOX[®] CR8712

modified epoxy resin | 2C | heat-curing

thixotropic, filled, very good temperature resistance, very good media resistance

Special features of product

- compliant with RoHS Directive 2015/863/EU
- halogen-free according to IEC 61249-2-21
- Component B is humidity-sensitive
- Long-term preheating of components is possible
- The filler may sediment. Therefore, the individual components must be stirred before use
- 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 - 180 °C

Curing

Curing time

<i>until final strength at +150 °C</i>	10	min
<i>until final strength at +130 °C</i>	30	min

Processing

Mixing ratio A : B - volume	0.65 : 1	
Mixing ratio A : B - weight	0.59 : 1	
Open time after mixing	6	h
Storage life in unopened original container		
<i>at +18 °C to +25 °C</i>	3	month(s)

Technical properties

Color in cured condition in 1 mm layer thickness	black
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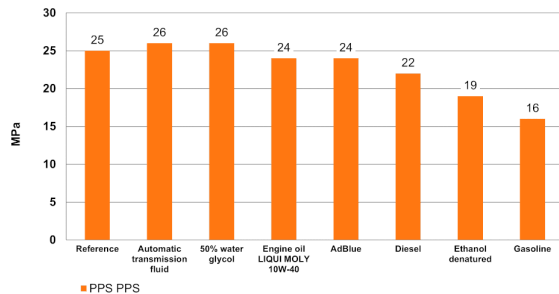
Transparency in cured condition in 1 mm layer thickness	opaque	
Filler content of component A	55	wt. %
Filler content of component B	69	wt. %

Parameters

Density <i>Component A by the criteria of DIN 66137-2 liquid</i>	1.59	g/cm ³
Density <i>Component B by the criteria of DIN 66137-2 liquid</i>	1.76	g/cm ³
Viscosity <i>Component A by the criteria of DIN 53019 liquid Rheometer Shear rate: 10 1/s Gap: 500 µm</i>	8000	mPa·s
Viscosity <i>Component B by the criteria of DIN 53019 liquid Rheometer Shear rate: 10 1/s Gap: 500 µm</i>	4500	mPa·s
Tensile shear strength <i>by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted 150 °C 10 min</i>	10	MPa
Compression shear strength <i>DELO Standard 5 AI AI 150 °C 10 min</i>	25	MPa
Compression shear strength <i>DELO Standard 5 AI AI 150 °C 10 min Type of storage: Temp. Storage temperature: 160 °C Duration: 1000 h</i>	31	MPa
Compression shear strength <i>DELO Standard 5 PPS PPS 150 °C 10 min</i>	25	MPa
Tensile strength <i>by the criteria of DIN EN ISO 527 150 °C 10 min</i>	65	MPa
Tensile strength <i>by the criteria of DIN EN ISO 527 150 °C 10 min Type of storage: Temp. Storage temperature: 160 °C Duration: 1000 h</i>	59	MPa
Tensile strength <i>by the criteria of DIN EN ISO 527 150 °C 10 min Type of storage: Temp. Storage temperature: 160 °C Duration: 1000 h Type of storage: Media Medium: Automatic transmission fluid</i>	54	MPa
Elongation at tear <i>by the criteria of DIN EN ISO 527 150 °C 10 min</i>	0.6	%
Elongation at tear <i>by the criteria of DIN EN ISO 527 150 °C 10 min Type of storage: Temp. Storage temperature: 160 °C Duration: 1000 h</i>	0.5	%

Elongation at tear <i>by the criteria of DIN EN ISO 527 150 °C 10 min Type of storage: Temp. Storage temperature: 160 °C Duration: 1000 h Type of storage: Media Medium: Automatic transmission fluid</i>	0.5	%
Young's modulus <i>by the criteria of DIN EN ISO 527 150 °C 10 min</i>	12000	MPa
Young's modulus <i>by the criteria of DIN EN ISO 527 150 °C 10 min Type of storage: Temp. Storage temperature: 160 °C Duration: 1000 h</i>	11500	MPa
Young's modulus <i>by the criteria of DIN EN ISO 527 150 °C 10 min Type of storage: Temp. Storage temperature: 160 °C Duration: 1000 h Type of storage: Media Medium: Automatic transmission fluid</i>	12000	MPa
Shore hardness D <i>by the criteria of DIN EN ISO 868 150 °C 10 min</i>	90	
Glass transition temperature <i>DELO Standard 26 TMA 150 °C 10 min</i>	190	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 30 °C - 130 °C 150 °C 10 min</i>	25	ppm/K
Shrinkage <i>DELO Standard 13 150 °C 10 min</i>	1.8	vol. %
Water absorption <i>by the criteria of DIN EN ISO 62 Layer thickness: 4 mm 150 °C 10 min Type of storage: Media Medium: Distilled water Storage temperature: at approx. +23 °C Duration: 24 h</i>	0.10	wt. %
Decomposition temperature <i>DELO Standard 36 150 °C 10 min</i>	330	°C
Dielectric strength <i>by the criteria of DIN EN 60243-1 150 °C 20 min</i>	23	kV/mm
Comparative Tracking Index <i>by the criteria of DIN EN 60112 150 °C 20 min</i>	600	

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



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. The heating time of the components must be added to the actual curing time. It depends on component size and type of heat input. The specified curing temperature must be reached directly at the adhesive. Increasing or decreasing the curing temperature and / or irradiation intensity and / or irradiation time shortens or prolongs the curing time and can lead to changed physical properties. Depending on the adhesive quantity used, exothermic reaction heat is generated which can lead to overheating. In this case, a lower curing temperature is to be selected. 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

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