DELO

TECHNICAL DATASHEET

DELO MONOPOX GE2710

modified epoxy resin | 1C | heat-curing

free of solvents | unfilled | flowable

Special features of product

- compliant with RoHS Directive 2015/863/EU
- halogen-free according to IEC 61249-2-21

Function

- encapsulant / potting compound

Typical area of use

- -40 - 180 °C

Curing

Recommended curing time		
at +130 °C *in air convection oven*	30	min

Processing

Conditioning time (typical)		
stored at 0 °C to +10 °C *in containers up to 310 ml*	3	h
Processing time		
in standard climate +23 °C / 50 % r. h.	14	d
Storage life in unopened original container		
at 0 °C to +10 °C	6	month(s)

Technical properties

Color in cured condition in 1 mm layer thickness	black
Transparency in cured condition in 1 mm layer thickness	opaque
Fluorescence	fluorescent

Parameters

Density *Based on DIN 66137-2 | Liquid*	1.17	g/cm³
Viscosity *Liquid | Rheometer | Shear rate: 10 1/s | Gap: 200 µm*	8000	mPa·s
Tensile shear strength *Based on DIN EN 1465 | Al | Al | Pretreatment: sand-blasted | 130 °C | 30 min*	22	MPa
Compression shear strength *DELO Standard 5 | PA6 | PA6 | 130 °C | 30 min*	35	MPa
Compression shear strength *DELO Standard 5 | Al | Al | 130 °C | 30 min*	68	MPa
Compression shear strength *DELO Standard 5 | Stainless steel | Stainless steel | 130 °C | 30 min*	37	MPa
Compression shear strength *DELO Standard 5 | FR4 | FR4 | 130 °C | 30 min*	72	MPa
Compression shear strength *DELO Standard 5 | PBT | PBT | 130 °C | 30 min*	20	MPa
Compression shear strength *DELO Standard 5 | PPS | PPS | 130 °C | 30 min*	22	MPa
Tensile strength *Based on DIN EN ISO 527 | 130 °C | 30 min*	70	MPa
Elongation at tear *Based on DIN EN ISO 527 | 130 °C | 30 min*	3	%
Young's modulus *DMTA | 130 °C | 30 min*	2900	MPa
Shore hardness D *Based on DIN EN ISO 868 | 130 °C | 30 min*	81	
Glass transition temperature *DMTA | 130 °C | 30 min*	93	°C
Coefficient of linear expansion *DELO Standard 26 | TMA | Evaluation T: 115 °C - 180 °C | 130 °C | 30 min*	193	ppm/K

Coefficient of linear expansion *DELO Standard 26 | TMA | Evaluation T: 23 °C - 50 °C | 130 °C | 30 min*	70	ppm/K
Shrinkage *DELO Standard 13 | 130 °C | 30 min*	3	vol. %
Water absorption *Based on DIN EN ISO 62 | 130 °C | 30 min | Type of storage: Media | Medium: Distilled water | Temp.: at approx. +23 °C*	0.1	wt. %
Dielectric strength *Based on DIN EN 60243-1 | 130 °C | 40 min*	15	kV/mm

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 oven type. The specified curing temperature must be reached directly at the adhesive.
Increasing or decreasing the curing temperature and / or irradiation intensity 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

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.