

DELO-MONOPOX® GE720

Heat curing Glob-Top

Base

- epoxy casting resin
- one-component, heat-curing, filled

Curing

- curing proceeds at a temperature of +150 °C in 40 min plus heating time of the components
- the heating time depends on the component size and the oven type
- increased temperatures shorten the curing process, lower temperatures extend it, and can change the properties of the cured product
- the minimal curing temperature is +140 °C
- the maximal curing temperature is +180 °C
- the actual curing times at the respective temperatures are dependent on the heating time of the components, the heating time of the components must be added to the curing time of the adhesive

Use

- for the casting of wire-bonded ICs
- for the casting of sensors in the automotive sector
- the product is normally used in a temperature range of -40 °C to +150 °C; depending on the application, other limits may be more reasonable

Processing

- the adhesive is supplied ready for use; in case of cool or refrigerated storage, it must be ensured that the container is conditioned to room temperature before use
- the containers are conditioned at room temperature (max. 25 °C); the conditioning time is approx. 0.5 h for containers up to 10 ml and approx. 2 h for containers up to 310 ml; additional heat addition is not allowed
- the adhesive can be optimally processed within the processing time (storage life at room temperature)
- the adhesive is normally applied by dispensing
- the surfaces to be bonded must be dry as well as free of dust, grease and other contaminations
- dispensing valves and product-bearing elements must be carefully cleaned directly after adhesive use; acetone is recommended as cleaner

Technical data

Color cured	black
Filler content [weight %]	61
Filler particle size [µm] d 90	≤40

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Density [g/cm³] at room temperature (approx. 23 °C)	1.7
Viscosity [mPas] at 23 °C, rheometer	20000
Processing time at room temperature (approx. 23 °C)	12 hours
Curing time until final strength [min] rheometer at +150 °C	40
Tensile shear strength Al/Al [MPa] DIN EN 1465, sand-blasted component thickness: 1.6 mm curing: 40 min at +150 °C	8
Compression shear strength FR4/FR4 [MPa] DELO Standard 5 curing: 40 min at +150 °C	7
Tensile strength [MPa] DIN EN ISO 527, after 60 min at +150 °C	40
Elongation at tear [%] DIN EN ISO 527, after 60 min at +150 °C	0.3
Young's modulus [MPa] DIN EN ISO 527, after 60 min at +150 °C	12000
Shore hardness D DIN 53505, after 60 min at +150 °C	90
Glass transition temperature [°C] TMA	175
Coefficient of linear expansion [ppm/K] TMA, in a temperature range of +30 to +150 °C	23
Shrinkage [vol. %] DELO Standard 13	0.6
Water absorption [%] DIN EN ISO 62, after 60 min at +150 °C	0.2
Ion content Cl- [ppm] extraction	< 10
Ion content K+ [ppm] extraction	< 10
Ion content Na+ [ppm] extraction	< 10
Specific volume resistance [Ωcm] VDE 0303, part 3	> 1xE13
Surface resistance VDE 0303, part 3	> 1xE13
Dielectric constant RF-IV method, 1 MHz, at 25 °C +/- 3 °C	3.7
Dielectric constant RF-IV method, 10 MHz, at 25 °C +/- 3 °C	3.6
Dielectric constant RF-IV method, 100 MHz, at 25 °C +/- 3 °C	3.5

Dielectric constant
RF-IV method, 1 GHz, at 25 °C +/- 3 °C

3.3

Creep resistance CTI
VDE 0303, part 1, IEC 112

600 M

Storage life
at approx. -20 °C in unopened original container

6 months

Performance under chemical influence
compression shear strength after storage for 1,000 h
based on initial value at room temperature
measured at room temperature (approx. 23 °C)
according to DELO Standard 5

Chemical medium	Compression/shear strength AI/AI [%]
acetone	61
ethanol denatured	131
ethanol 70 % denatured	59
ATF gear oil	106
petrol	122
diesel fuel	97
engine oil 10W40	107
sulphuric acid 10 %	57
demineralised water / glykol mixture 50:50	84
demineralised water	57

Instructions and advice

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.

Many product properties are subject to temperature and may change permanently, especially at high temperatures.

It is the user's responsibility to test the suitability of the product for the intended purpose and temperature range of use by considering all specific requirements. Type and 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.

Instructions for use

The instructions for use of DELO-MONOPOX are available on: www.DELO.de. We will be pleased to send them to you on demand.

Occupational health and safety

see material safety data sheet

Specification

see quality assurance test report