

DELO[®] MONOPOX HT2860

modified epoxy resin | 1C | heat-curing

free of solvents | filled, thixotropic | tough-hard, very high temperature strength

Special features of product

- compliant with RoHS Directive 2015/863/EU
- passes ANSI/UL 94 HB Flame Test

Function

- construction adhesive

Typical area of use

- -55 - 220 °C

Curing

Typical curing time

| | | |
|--|----|-----|
| <i>at +130 °C in air convection oven</i> | 30 | min |
| <i>at +150 °C in air convection oven</i> | 10 | min |

Processing

Conditioning time (typical)

| | | |
|--|---|---|
| <i>when stored in cold conditions in containers up to 310 ml</i> | 3 | h |
|--|---|---|

Processing time

| | | |
|--|----|---|
| <i>in standard climate +23 °C / 50 % r. h.</i> | 28 | d |
|--|----|---|

Storage life in unopened original container

| | | |
|--------------------------|---|----------|
| <i>at 0 °C to +10 °C</i> | 6 | 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 | aluminum |

Parameters

| | | |
|--|--------|-------------------|
| Density <i>by the criteria of DIN 66137-2 liquid</i> | 1.62 | g/cm ³ |
| Viscosity <i>liquid Rheometer Shear rate: 10 1/s</i> | 110000 | mPa·s |
| Tensile shear strength <i>by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted 150 °C 40 min</i> | 22 | MPa |
| Tensile shear strength <i>by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted 150 °C 40 min Measuring temperature: 150 °C</i> | 18 | MPa |
| Tensile shear strength <i>by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted 150 °C 40 min Measuring temperature: 200 °C</i> | 5 | MPa |
| Tensile shear strength <i>by the criteria of DIN EN 1465 AI AI Pretreatment: sand-blasted 150 °C 40 min Measuring temperature: 220 °C</i> | 4.5 | MPa |
| Compression shear strength <i>DELO Standard 5 AI AI 150 °C 40 min</i> | 65 | MPa |
| Compression shear strength <i>DELO Standard 5 Ceramic Ceramic 150 °C 40 min</i> | 55 | MPa |
| Compression shear strength <i>DELO Standard 5 Ceramic Ceramic 150 °C 40 min Measuring temperature: 150 °C</i> | 25 | MPa |
| Compression shear strength <i>DELO Standard 5 Ceramic Ceramic 150 °C 40 min Measuring temperature: 200 °C</i> | 6 | MPa |
| Compression shear strength <i>DELO Standard 5 Ceramic Ceramic 150 °C 40 min Measuring temperature: 220 °C</i> | 4 | MPa |
| Compression shear strength <i>DELO Standard 5 PA6 PA6 150 °C 40 min</i> | 35 | MPa |
| Compression shear strength <i>DELO Standard 5 PPS PPS 150 °C 40 min</i> | 25 | MPa |
| Tensile strength <i>by the criteria of DIN EN ISO 527 150 °C 40 min</i> | 69 | MPa |
| Elongation at tear <i>by the criteria of DIN EN ISO 527 150 °C 40 min</i> | 3.2 | % |

| | | |
|---|------|---------|
| Young's modulus <i>by the criteria of DIN EN ISO 527 150 °C 40 min</i> | 4400 | MPa |
| Shore hardness D <i>by the criteria of DIN EN ISO 868 150 °C 40 min</i> | 86 | |
| Glass transition temperature <i>DMTA 150 °C 40 min</i> | 168 | °C |
| Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 30 °C - 110 °C 150 °C 40 min</i> | 50 | ppm/K |
| Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 135 °C - 230 °C 150 °C 40 min</i> | 148 | ppm/K |
| Shrinkage <i>DELO Standard 13 150 °C 40 min</i> | 1.5 | vol. % |
| Water absorption <i>by the criteria of DIN EN ISO 62 Layer thickness: 4 mm 150 °C 40 min Type of storage: Media Medium: Distilled water Storage temperature: at approx. +23 °C</i> | 0.2 | wt. % |
| Decomposition temperature <i>DELO Standard 36 150 °C 40 min</i> | 303 | °C |
| Specific thermal conductivity <i>by the criteria of ASTM D 5470 150 °C 40 min</i> | 0.8 | W/(m·K) |

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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CONTACT

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ADHESIVES

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