

DELO DUALBOND® IC343

modified polycarbamin acid derivat | 1C | **light-fixable / heat-curing**

free of solvents | heat curing mandatory, light-fixable, low-temperature-curing, isotropic electrically conductive, thixotropic, silver-filled

Special features of product

- compliant with RoHS Directive 2015/863/EU
- halogen-free according to IEC 61249-2-21
- compliant with limits of VOC content in adhesive acc. to GB33372-2020
- tested for biocompatibility and meets the requirements according to DIN EN ISO 10993-5: test for cytotoxicity

Function

- electronic adhesive

Typical area of use

- -40 - 130 °C

Curing

Suitable lamp types LED 365 nm, LED 400 nm

Typical light fixation time

*intensity 200 mW/cm²
LED 365 nm* 1 - 5 s

Typical curing time

*at +80 °C
in air convection oven* 30 min

*at +90 °C
in air convection oven* 15 min

*at +100 °C
in air convection oven* 10 min

Processing

Conditioning time (typical)

*when stored in cold conditions
in containers up to 10 ml* 0.5 h

*when stored in cold conditions
in containers up to 50 ml* 1 h

Processing time

in standard climate +23 °C / 50 % r. h. 72 h

Storage life in unopened original container

at -45 °C to -15 °C 6 month(s)

Technical properties

Color in cured condition in 1 mm layer thickness silver-gray

Transparency in cured condition in 1 mm layer thickness opaque

Filler particle type silver

Parameters

Density 3 g/cm³
DELO Standard 13 | liquid

Viscosity 42000 mPa·s
liquid | Rheometer | Shear rate: 10 1/s | Gap: 200 µm

Compression shear strength 12 MPa
*DELO Standard 5 | **FR4** | **FR4** | Pretreatment: Annealing | 100 °C | 10 min*

Compression shear strength 5 MPa
*DELO Standard 5 | **FR4** | **LCP GF30** | Pretreatment: Annealing | 100 °C | 10 min*

Compression shear strength 7 MPa
*DELO Standard 5 | **FR4** | **PBT** | Pretreatment: Annealing | 100 °C | 10 min*

Compression shear strength 10 MPa
*DELO Standard 5 | **FR4** | **PC** | Pretreatment: Annealing | 100 °C | 10 min*

Compression shear strength 4 MPa
*DELO Standard 5 | **PBT** | **PBT** | 100 °C | 10 min*

Compression shear strength 10 MPa
*DELO Standard 5 | **PC** | **ABS** | 100 °C | 10 min*

Compression shear strength 13 MPa
*DELO Standard 5 | **PC** | **PC** | 100 °C | 10 min*

Compression shear strength 5 MPa
*DELO Standard 5 | **PET** | **PET** | 100 °C | 10 min*

Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: 35 °C - 150 °C 100 °C 10 min</i>	150	ppm/K
Shrinkage <i>DELO Standard 13 100 °C 10 min</i>	2.2	vol. %
Water absorption <i>by the criteria of DIN EN ISO 62 100 °C 10 min Type of storage: Temp. Storage temperature: at approx. +23 °C Duration: 72 h Type of storage: Media Medium: Distilled water Storage temperature: at approx. +23 °C Duration: 24 h</i>	0.2	wt. %
Specific thermal conductivity <i>by the criteria of ASTM D 5470 100 °C 10 min</i>	1.8	W/(m·K)
Specific thermal conductivity <i>by the criteria of ASTM E 1461 100 °C 10 min</i>	1.5	W/(m·K)
Electrical resistivity <i>DELO Standard 29 100 °C 10 min</i>	0.1	mOhm·cm

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

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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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