

### **DELOMONOPOX® DA358**

heatcuring adhesive

#### **Base**

- modified polycarbaminacid derivative
- one-component, heatcuring, solvent-free, filled, thixotropic

#### **Use**

- especially for a fast fixing of components and curing at low temperatures
- the cured product is normally used in a temperature range of -40 °C to +130 °C; depending on the application, other limits may be more reasonable
- compliant with RoHS directive 2011/65/EU
- halogen-free by the criteria of IEC 61249-2-21

#### **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; additional heat addition is not allowed
- the adhesive is 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
- adequate cleaners are acetone and BDGA (butyldiglykolacetate); for BDGA use acetone as a chaser, do not use alcoholic or hydrous cleaners

#### **Curing**

- curing proceeds, e. g., at temperatures between +80 and +170 °C at the adhesive
- increased temperatures shorten the curing process, lower temperatures extend it, and can change the properties of the cured product
- 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
- the heating time depends on the component size and the oven type
- the curing times of the adhesive at the curing temperatures recommended can be drawn from the technical data

#### **Technical data**

Color	beige
Density [g/cm <sup>3</sup> ] DELO Standard 13 at room temperature (approx. 23 °C)	1.22

**DELO** Industrial Adhesives  
DELO-Allee 1  
86949 Windach · Germany  
Phone +49 8193 9900-0  
Fax +49 8193 9900-144  
info@DELO.de · www.DELO.de

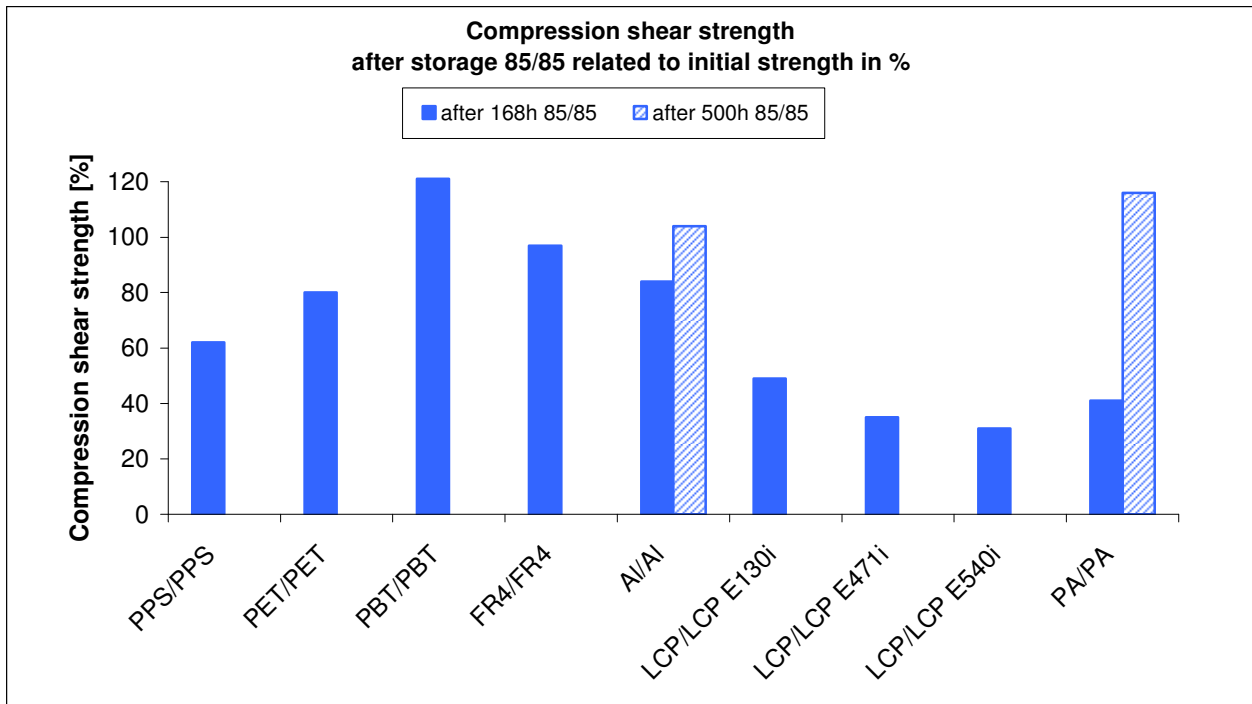
<b>Viscosity [mPas]</b> at 23 °C, rheometer, 10 1/s	30000
<b>Curing time with thermode [s]</b> at +150 °C adhesive temperature	5
<b>Curing time with air convection oven [min]</b> at +100 °C	10
<b>Curing time with air convection oven [min]</b> at +80 °C	30
<b>Die shear strength on glass/epoxy tape [N]</b> DELO Standard 30 substrate glass/epoxy tape sandblasted; Si Die 2.0 x 2.0 mm at room temperature (approx. 23 °C)	150
<b>Die shear strength on Au [N]</b> DELO Standard 30 substrate Au electroplated, Si chip 2.0 x 2.0 mm at room temperature (approx. 23 °C)	150
<b>Compression shear strength Al/Al [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	27
<b>Compression shear strength PA/PA [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	10
<b>Compression shear strength PBT/PBT [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	13
<b>compression shear strength [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	15
<b>Compression shear strength PPS/PPS [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	17
<b>Compression shear strength FR4/FR4 [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	60
<b>Compression shear strength LCP/LCP (E130i) [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	7
<b>Compression shear strength LCP/LCP (E471i) [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	9
<b>Compression shear strength LCP/LCP (E540i) [MPa]</b> DELO Standard 5 curing: 30 min at +130 °C after 24 h room temperature	8
<b>Tensile strength [MPa]</b> according to DIN EN ISO 527 layer thickness: 2 mm curing: 50 min +100 °C after 24h room temperature (max. +25 °C)	34

<b>Elongation at tear [%]</b> according to DIN EN ISO 527 layer thickness: 2 mm curing: 50 min +100 °C after 24h room temperature (max. +25 °C)	23
<b>Young's modulus [MPa]</b> according to DIN EN ISO 527 layer thickness: 2 mm curing: 50 min +100 °C after 24h room temperature (max. +25 °C)	1300
<b>Shore hardness D</b> according to DIN EN ISO 868 layer thickness: 4 mm curing: 50 min at +100 °C after 24 h room temperature	42
<b>Glass transition temperature [°C]</b> DELO Standard 28, TMA	45
<b>Coefficient of linear expansion [ppm/K]</b> TMA, DELO Standard 26 in a temperature range of +30 °C to +150 °C	184
<b>Shrinkage [vol. %]</b> DELO Standard 13	3.0
<b>Water absorption [weight %]</b> according to DIN EN ISO 62, 24 h at room temperature (approx. 23 °C)	0.4
<b>Ion content Na+</b> extraction	<10
<b>Ion content K+</b> extraction	<10
<b>Ion content Cl-</b> extraction	<20
<b>Ion content F-</b> extraction	<10
<b>Storage life at room temperature (max. 25 °C)</b> in unopened original container	3 days
<b>storage life at -18 °C</b> in unopened original container	6 months

## Compression shear strength

DELO Standard 5

curing: 30 min at +130 °C



## 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. Verbal ancillary agreements are deemed not to exist.

### Instructions for use

The instructions for use of DELOMONOPOX are available on: [www.DELO.de](http://www.DELO.de). We will be pleased to send them to you on demand.

### Occupational health and safety

see material safety data sheet

### Specification

The properties in *italics* are part of the specification. Ranges with clear limits are defined for them and others, where applicable. In the course of the QA test, each batch is tested for these properties and the maintenance of the limits is ensured. The measuring methods used can deviate from those specified in the data sheet. Details can be found in the QA test report.