

### **DELO-DUOPOX® 02 rapid**

Multi-purpose 2c epoxy resin, cures at room temperature, low-viscous, unfilled

#### **Base**

- epoxy resin
- two-component

#### **Use**

- multi-purpose adhesive
- in mechanical engineering and tool construction
- in electrical engineering and electronics
- also for repair and in the do-it-yourself sector
- fast achievement of initial strength
- the cured product is normally used in a temperature range of -40 °C to +80 °C; depending on the application, other limits may be more reasonable
- successfully tested according to UL 94 HB
- compliant with RoHS directive 2015/863/EU

#### **Processing**

- supplied ready for use and can be processed well from the original container
- components A and B must be mixed homogeneously in the mixing ratio stated below
- using the DELO-AUTOMIX system for processing is especially advantageous
- the surfaces to be bonded must be dry as well as free of dust, grease and other contaminations
- use DELOTHEN cleaners for the cleaning of bonding surfaces

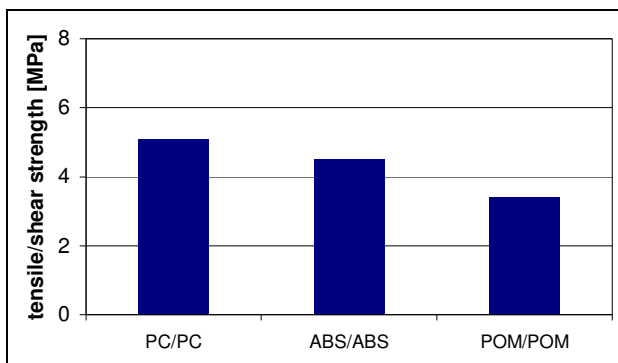
#### **Curing**

- at room temperature (approx. 23 °C)
- very fast reaction
- increased temperatures accelerate curing
- applying heat could change physical characteristics

#### **Technical data**

<i>Color</i>	yellowish transparent
Filler	unfilled
Mixing ratio	
(A : B) according to weight	1 : 1
(A : B) according to volume	1 : 1
Density of component A [g/cm <sup>3</sup> ] DELO Standard 13 at room temperature (approx. 23 °C)	1.17

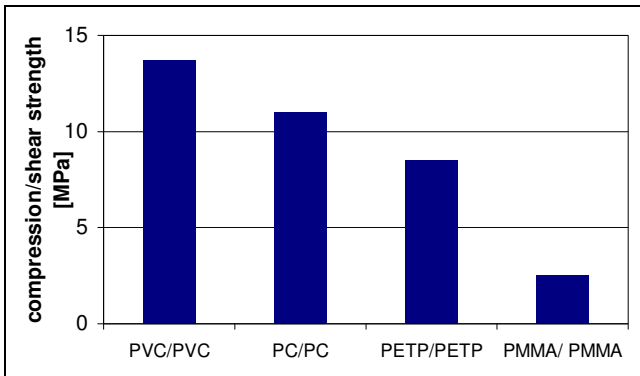
Density of component B [g/cm <sup>3</sup> ] DELO Standard 13 at room temperature (approx. 23 °C)	1.14
<i>Viscosity of component A</i> [mPas] Brookfield at 23 °C	8000
<i>Viscosity of component B</i> [mPas] Brookfield at 23 °C	18000
Processing time in 3 g preparation [min] at room temperature (approx. 23 °C)	6
Maximal reaction temperature [°C] in 20 g preparation	130
Curing time until initial strength [min] tensile shear strength 1 - 2 MPa at room temperature (approx. 23 °C)	12
Curing time until functional strength [h] tensile shear strength > 10 MPa at room temperature (approx. 23 °C)	24
Curing time until functional strength [min] tensile shear strength > 10 MPa, at +80 °C	15
Curing time until final strength [h] at room temperature (approx. 23 °C)	72
Curing time until final strength [h] at +60 °C	1.5
Curing time until final strength [min] at +80 °C	60
<i>Tensile shear strength Al/Al</i> [MPa] DIN EN 1465, sand-blasted component thickness: 1.6 mm after 72 h at room temperature (approx. 23 °C)	18
<i>Tensile shear strength Al/Al</i> [MPa] DELO Standard 39, sand-blasted component thickness: 6 mm after 72 h at room temperature (approx. 23 °C)	16
<b>Tensile shear strength</b> DIN EN 1465 curing: 72 h at room temperature (approx. 23 °C)	



## Compression shear strength

DELO Standard 5

curing: 7 d at room temperature (approx. 23 °C)



## Floating roller peel resistance St/St [N/mm]

DELO Standard 38, St/St sand-blasted

component thickness: 1.6 mm and 0.5 mm

2.5

## Temperature stability Al/Al at +100 °C [MPa]

according to DIN EN 1465, at +100 °C, sand-blasted

component thickness: 1.6 mm

1

## Tensile strength [MPa]

DIN EN ISO 527

24

## Elongation at tear [%]

DIN EN ISO 527

20

## Young's modulus [MPa]

DIN EN ISO 527

1000

## Shore hardness D

DIN EN ISO 868

74

## Ball indentation hardness [MPa]

ISO 2039, part 1

53

## Glass transition temperature [°C]

TMA, 2nd heating process

31

## Decomposition temperature [°C]

DELO Standard 36

280

## Coefficient of linear expansion [ppm/K]

TMA, in a temperature range of +30 to +140 °C

211

## Shrinkage [vol. %]

DELO Standard 13

4

## Water absorption [weight %]

DIN EN ISO 62, 24 h at room temperature (approx. 23 °C)

0.7

## Specific volume resistance [ $\Omega$ cm]

VDE 0303, part 30

>1xE12

## Surface resistance [ $\Omega$ ]

VDE 0303, part 30

1xE11

## Dielectric strength [kV/mm]

VDE 0303, part 2

17

## Dielectric constant

VDE 0303, part 4

3.2

Creep resistance CTI  
VDE 0303, part 11, DIN EN 60112

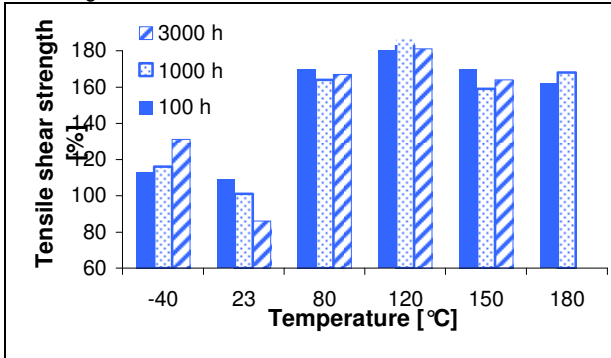
600 M

Storage life at room temperature (approx. 23 °C)  
in unopened original container (volume per component < 1l)

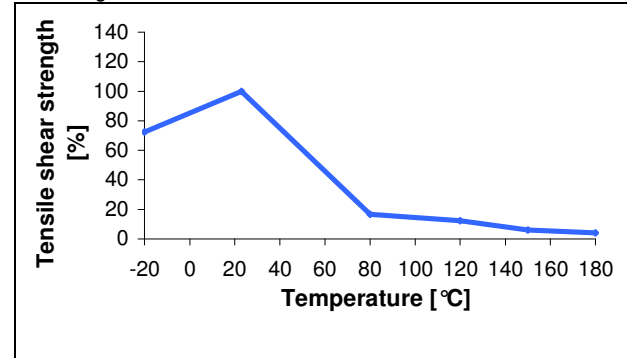
12 months

### Performance under temperature influence

tensile shear strength Al/Al sand-blasted after temperature storage based on initial value at room temperature measured at room temperature (approx. 23 °C) according to DIN EN 1465



tensile shear strength Al/Al sand- blasted at temperature based on initial value at room temperature measured at determined temperature according to DIN EN 1465



## 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. 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.

Nothing contained herein shall be construed to indicate the non-existence of any relevant patents or to constitute a permission, encouragement or recommendation to practice any development covered by any patents, without permission of the owner of this patent.

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 of DELO-DUOPOX 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.