

DELO-DUOPOX® 03 rapid

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

Base

- epoxy resin
- two-component
- product is free of nonylphenol

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 2011/65/EU

Processing

- components A and B must be mixed well or homogenized in the mixing ratio stated below
- supplied ready for use and can be processed well from the original container
- using the DELO-AUTOMIX system for processing is especially advantageous, see selection chart "DELO-AUTOMIX system"
- 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

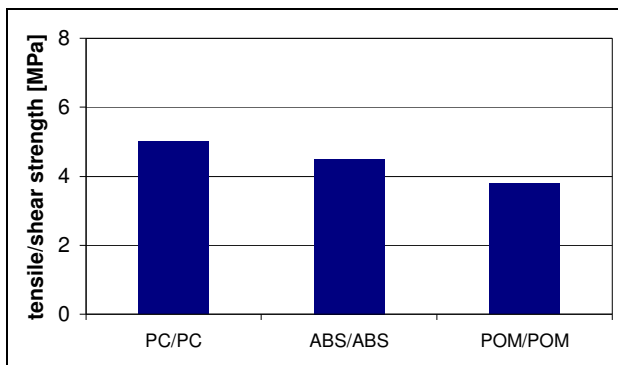
- at room temperature (approx. 23 °C)
- very fast reaction
- increased temperatures accelerate curing
- applying heat could change physical characteristics

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 ³] DELO Standard 13 at room temperature (approx. 23 °C)	1.15

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Density of component B [g/cm ³] DELO Standard 13 at room temperature (approx. 23 °C)	1.14
<i>Viscosity of component A</i> [mPas] Brookfield at 23 °C	13000
<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)	3
Maximal reaction temperature [°C] in 20 g preparation	140
Curing time until firmness to touch [min] tensile shear strength 1 - 2 MPa at room temperature (approx. 23 °C)	11
Curing time until functional strength [h] tensile shear strength > 10 MPa at room temperature (approx. 23 °C)	2
Curing time until final strength [h] at room temperature (approx. 23 °C)	24
Curing time until final strength [min] at +80 °C	40
<i>Tensile shear strength Al/Al</i> [MPa] DIN EN 1465, sand-blasted component thickness: 1.6 mm after 24 h at room temperature (approx. 23 °C)	13
<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
Tensile shear strength DIN EN 1465 curing: 24 h at room temperature (approx. 23 °C)	

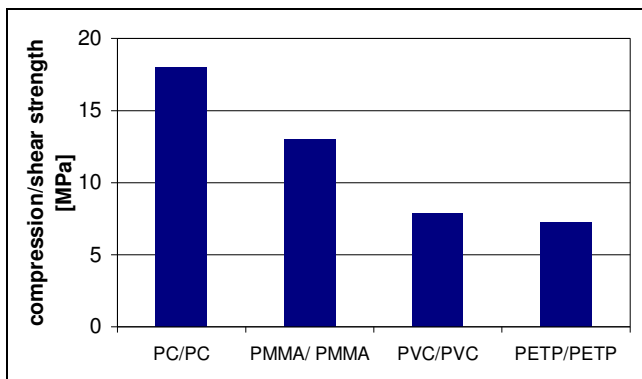


Floating roller peel resistance St/St [N/mm] DELO Standard 38, St/St sand-blasted component thickness: 1.6 mm and 0.5 mm	1.1
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Compression shear strength

DELO Standard 5

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



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

according to DIN EN 1465, sand-blasted
component thickness: 1.6 mm

1

Tensile strength [MPa]

DIN EN ISO 527

31

Elongation at tear [%]

DIN EN ISO 527

19

Young's modulus [MPa]

DIN EN ISO 527

2000

Shore hardness D

DIN 53505

75

Ball indentation hardness [MPa]

ISO 2039, part 1

83

Coefficient of linear expansion [ppm/K]

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

242

Shrinkage [vol. %]

DELO Standard 13

4

Water absorption [weight %]

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

1

Specific volume resistance [Ωcm]

VDE 0303, part 30

>1xE13

Surface resistance [Ω]

VDE 0303, part 30

>1xE11

Dielectric strength [kV/mm]

VDE 0303, part 2

18

Dielectric constant

VDE 0303, part 4

2.9

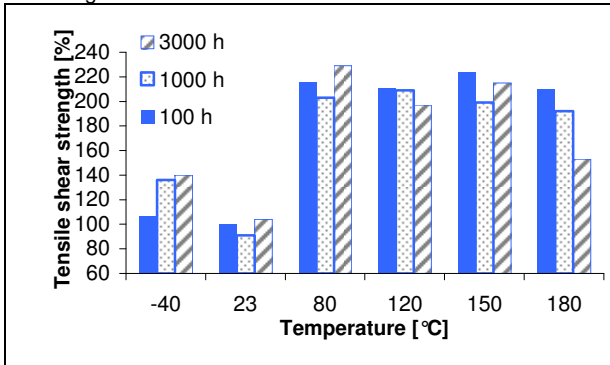
Creep resistance CTI

VDE 0303, part 11, DIN EN 60112

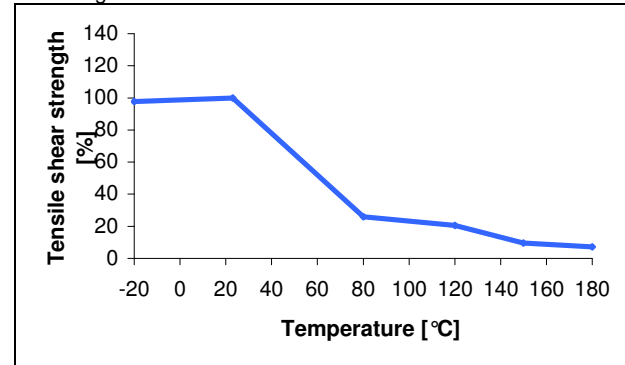
600 M

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



Storage life at room temperature (max. 25 °C)
in unopened original container (volume per component < 1l)

12 months

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 DELO-DUOPOX 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

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.