DELO

Technical Information

DELO-DUOPOX® FR898

Multi-purpose 2c epoxy resin, cures at room temperature, filled

Base

- epoxy resin
- two-component

Use

- multi-purpose in connection with different metal and non-metal materials, e. g., steel, aluminum, stainless steel, concrete and wood
- for bonding and sealing
- the cured product is normally used in a temperature range of -40 °C to +140 °C; depending on the application, other limits may be more reasonable
- UL listed product with Flame Class V-0 according to ANSI/UL 94, ANSI/UL 746A, ANSI/UL 746B, CSA-C22.2 No. 0.17 / Product Category Code QMFZ2, UL File Number E467212 (Yellow Card)
- 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

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

Technical data

Color	dark gray
Filler	inorganic filler
Mixing ratio (A : B) according to volume (A : B) according to weight	 2 : 1 7 : 3
Density of component A [g/cm³] DIN 66137-2, measured with helium pycnometer at room temperature (approx. 23 °C)	1.32
Density of component B [g/cm³] DIN 66137-2, measured with helium pycnometer at room temperature (approx. 23 °C)	1.13

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Viscosity of component A [mPas] Brookfield at 23 °C	150000
Viscosity of component B [mPas] Brookfield at 23 °C	50000
Processing time in 100 g preparation [min] at room temperature (approx. 23 °C)	34
Curing time until initial strength [h] tensile shear strength 1 - 2 MPa at room temperature (approx. 23 °C)	4.5
Curing time until functional strength [h] tensile shear strength > 10 MPa at room temperature (approx. 23 °C)	8
Maximum reaction temperature [°C] in 100 g preparation at room temperature (approx. 23 °C)	85
Tensile shear strength Al/Al [MPa] by the criteria of DIN EN 1465, sand-blasted component thickness 1.6 mm, gap 0.1 mm curing: 24 h at room temperature (approx. 23 °C)	18
Floating roller peel test [N/mm] DELO Standard 38 Curing: 7d at room temperature (approx. 23 °C)	3
Tensile strength [MPa] According to standard DIN EN ISO 527 Curing: 7 d room temperature (approx. 23 °C)	36
Elongation at tear [%] According to standard DIN EN ISO 527 Curing: 7 d room temperature (approx. 23 °C)	2
Young's modulus [MPa] According to standard DIN EN ISO 527 Curing: 7 d room temperature (approx. 23 °C)	2400
Shore hardness D according to DIN EN ISO 868 curing: 7d at room temperature (approx. 23 °C)	77
Glass transition temperature [°C] Rheometer, 2nd heating process	54
Coefficient of linear expansion [ppm/K] DELO Standard 26 TMA in a temperature range of +30 °C to +50 °C	102
Coefficient of linear expansion [ppm/K] DELO Standard 26 TMA in a temperature range of +80 °C to +160 °C	172
Shrinkage [vol. %] DELO-Norm 13 curing: 7 d at room temperature	4
Water absorption [weight %] according to DIN EN ISO 62	0.22
Decomposition temperature [°C] DELO Standard 36	253
Specific volume resistance [Ωcm] DIN IEC 60093	>1xE15

Surface resistance [Ω] DIN IEC 60093	>1xE15
Dielectric strength [kV/mm] DIN EN 60243-2	18
Dielectric constant DIN 53483-2, 1kHz	4.4
Dielectric constant DIN 53483-2, 100 kHz	3.9
Dielectric constant DIN 53483-2, 1 MHz	3.6
Creep resistance CTI DIN EN 60112	300
Storage life at room temperature (approx. 23 °C) in unopened original container volume per component < 1 l	9 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. 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. 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.