

DELO[®] PHOTOBOND[®] LA4880

modified urethane polymer | 1C | humidity-curing after preactivation

free of solvents | preactivated, thixotropic, filled

Special features of product

- compliant with RoHS Directive 2015/863/EU
- 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

Typical area of use

- -40 - 120 °C

Curing

Suitable lamp types LED 400 nm, LED 460 nm

Typical preactivation time

intensity 300 mW/cm² 6 s
LED 400 nm

intensity 400 mW/cm² 6 s
LED 460 nm

Processing

Typical adhesive application needle dispensing, stencil printing, screen printing

Conditioning time (typical)

when stored in cold conditions 30 min
in containers up to 50 ml

when stored in cold conditions 5 h
in containers up to 600 ml

when stored in cold conditions 24 h
in containers up to 30 l

Processing time

in standard climate +23 °C / 50 % r. h. 14 d
in containers up to 600 ml

Storage life in unopened original container

at 0 °C to +10 °C 6 month(s)

Technical properties

Color in uncured condition	yellowish
Color in cured condition in 0.1 mm layer thickness	whitish
Transparency in cured condition in 0.1 mm layer thickness	translucent
Fluorescence	blue fluorescent

Parameters

Density <i>by the criteria of DIN 66137-2 liquid</i>	1.34	g/cm ³
Viscosity <i>liquid Rheometer Shear rate: 2 1/s Gap: 500 µm</i>	70000	mPa·s
Maximum curable layer thickness <i>Preactivation 400 nm 300 mW/cm² 6 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	1	mm
Maximum curable layer thickness <i>Preactivation 460 nm 400 mW/cm² 6 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	1.5	mm
Open time after preactivation <i>Preactivation 400 nm 300 mW/cm² 6 s</i>	5	s
Open time after preactivation <i>Preactivation 460 nm 400 mW/cm² 6 s</i>	20	s
Compression shear strength <i>DELO Standard 5 AI AI Preactivation 400 nm 200 mW/cm² 4 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	4	MPa
Compression shear strength <i>DELO Standard 5 Glass Glass Preactivation 400 nm 200 mW/cm² 4 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	6	MPa
Compression shear strength <i>DELO Standard 5 PA6 PA6 Preactivation 400 nm 200 mW/cm² 4 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	3	MPa
Compression shear strength <i>DELO Standard 5 PC PC Preactivation 400 nm 200 mW/cm² 4 s Plus at approx. +23 °C Rel. air humidity: 50 % 72 h</i>	6	MPa

Compression shear strength 6 MPa
 DELO Standard 5 | **PC-ABS | PC-ABS** | Preactivation | 400 nm | 200 mW/cm² | 4 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 72 h

Tensile strength 5 MPa
 by the criteria of DIN EN ISO 527 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 168 h

Elongation at tear 270 %
 by the criteria of DIN EN ISO 527 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 168 h

Young's modulus < 10 MPa
 DMTA | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 72 h

Shore hardness A 50
 by the criteria of DIN EN ISO 868 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 168 h

Glass transition temperature -75 °C
 DMTA | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 72 h

Coefficient of linear expansion 190 ppm/K
 DELO Standard 26 | TMA | Evaluation T: -30 °C - 150 °C | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 168 h

Shrinkage 1.2 vol. %
 DELO Standard 13 | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 168 h

Water absorption 0.6 wt. %
 by the criteria of DIN EN ISO 62 | Layer thickness: 4 mm | 400 nm | 200 mW/cm² | 60 s | Plus | at approx. +23 °C | Rel. air humidity: 50 % | 168 h | Type of storage: Media | Medium: Distilled water | Storage temperature: at approx. +23 °C | Duration: 24 h

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. 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. A short irradiation time (preactivation time) results in an open time within which opaque components can be joined. The product cures completely after preactivation by humidity at room temperature. Air humidity is mandatory for curing. All curing or light fixation parameters

depend on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer. 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 the suitability of the product for a specific purpose.

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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

Nothing contained in this Technical Datasheet shall be interpreted as any express warranty or guarantee. This Technical Datasheet is for reference only and does not constitute a product specification. Please ask our responsible Sales Engineer for the applicable product specification which includes defined ranges. DELO is neither liable for any values and content of this Technical Datasheet nor for oral or written recommendations regarding the use, unless otherwise agreed in writing. This limitation of liability is not applicable for damages resulting from intent, gross negligence or culpable breach of cardinal obligations, nor shall it apply in case of death or personal injury or in case of liability under any applicable compulsory law.

CONTACT

DELO PHOTOBOND LA4880 | as of 22.06.2023 15:36 | Page 4 of 4

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ADHESIVES

DISPENSING

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