

# DELO KATIOBOND 4578

**modified epoxy resin | 1C | light-activated**

free of solvents | unfilled, thixotropic | preactivated

## Special features of product

- compliant with RoHS Directive 2015/863/EU
- passes ANSI/UL 94 HB Flame Test

## Typical area of use

- -40 - 150 °C

## Curing

Suitable lamp types LED 400 nm, LED 460 nm,  
UVA

Recommended irradiation time

*intensity 200 mW/cm<sup>2</sup>*  
*LED 400 nm* 20 - 30 s

## Processing

Adhesive application needle-dispensable

Storage life in unopened original container

*at 0 °C to +25 °C* 6 month(s)

## Technical properties

Color in cured condition in 0.1 mm layer thickness yellow

Transparency in cured condition in 0.1 mm layer thickness transparent

## Parameters

Density 1.13 g/cm<sup>3</sup>  
*Based on DIN EN ISO 2811-3 | Liquid*

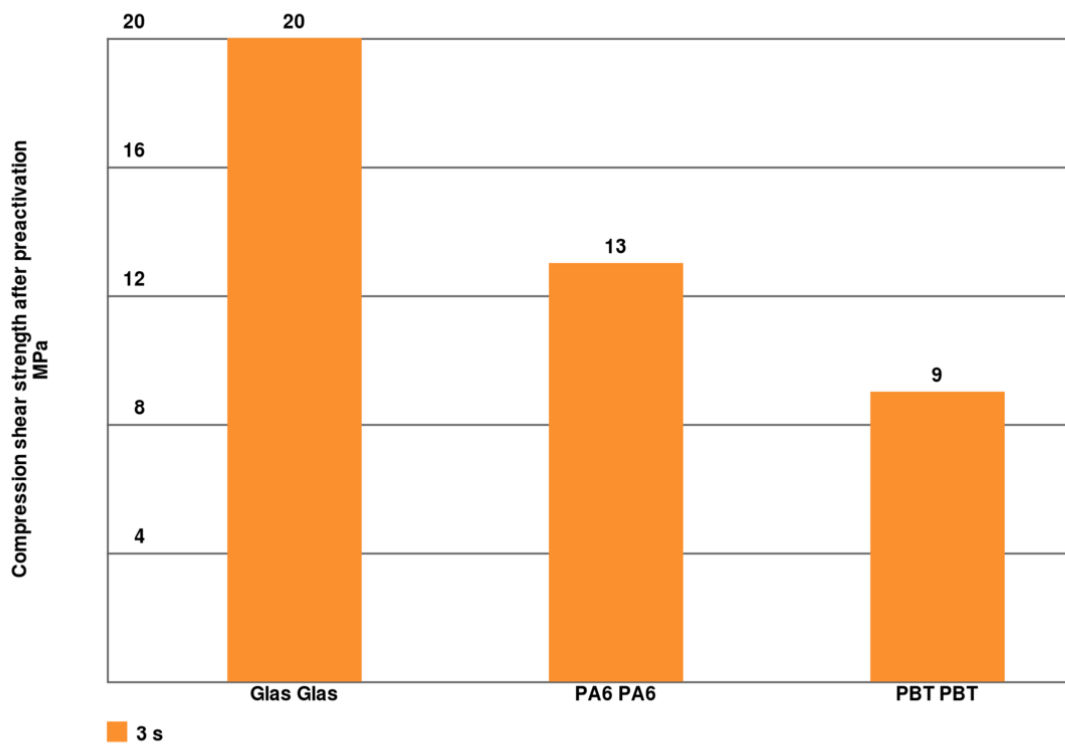
Viscosity 3000 mPa·s  
*Liquid | Rheometer | Shear rate: 10 1/s*

Thixotropy index 2.7  
*Liquid | Rheometer*

Preactivation time for defined open time <i>DELO Standard 19   Cardboard   460 nm   200 mW/cm<sup>2</sup></i>	3	s
Open time after preactivation <i>DELO Standard 19   Cardboard   460 nm   200 mW/cm<sup>2</sup></i>	≤ 18	s
Maximum layer thickness that can be preactivated <i>DELO Standard 21   460 nm   200 mW/cm<sup>2</sup>   3 s   Plus   24 h</i>	3.2	mm
Compression shear strength <i>DELO Standard 5   Glass   PBT   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	13	MPa
Compression shear strength <i>DELO Standard 5   PC   PC   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	35	MPa
Compression shear strength <i>DELO Standard 5   Glass   PA6   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	13	MPa
Compression shear strength <i>DELO Standard 5   Glass   LCP E130i   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	8	MPa
Compression shear strength <i>DELO Standard 5   Glass   Glass   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	20	MPa
Compression shear strength <i>DELO Standard 5   Glass   FR4   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	20	MPa
Compression shear strength <i>DELO Standard 5   Glass   Al   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	20	MPa
Tensile strength <i>Based on DIN EN ISO 527   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	23	MPa
Elongation at tear <i>Based on DIN EN ISO 527   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	3	%
Young's modulus <i>DMTA   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	2600	MPa
Shore hardness D <i>Based on DIN EN ISO 868   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	61	
Glass transition temperature <i>DMTA   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	125	°C

Coefficient of linear expansion <i>DELO Standard 26   TMA   Evaluation T: 30 °C - 150 °C   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	138	ppm/K
Shrinkage <i>DELO Standard 13   400 nm   200 mW/cm<sup>2</sup>   30 s   Plus   24 h</i>	4.0	vol. %
Decomposition temperature <i>DELO Standard 36</i>	213	°C

Compression shear strength after preactivation, based on DELO-Norm 5



**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 intensity 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 cationic curing mechanism enables the adhesive to cure on opaque components after joining by sufficient preactivation.

All curing or light fixation parameters depend on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer.

Curing until final strength proceeds within 24 hours at room temperature.

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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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 are available on [www.DELO-adhesives.com](http://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

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