

DELO[®] PHOTOBOND[®] SJ4194

modified acrylate | 1C | UV- / VIS-curing

free of solvents | thixotropic, humidity-resistant, tension-equalizing

Special features of product

- compliant with RoHS Directive 2015/863/EU
- 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 365 nm, LED 400 nm	
Typical irradiation time		
<i>intensity 200 mW/cm² LED 400 nm</i>	3	s
<i>intensity 1,000 mW/cm² LED 400 nm</i>	2	s

Processing

Conditioning time (typical)		
<i>when stored in cold conditions in containers up to 50 ml</i>	30	min
<i>when stored in cold conditions in containers up to 600 ml</i>	4	h
Processing time		
<i>in standard climate +23 °C / 50 % r. h. in containers up to 600 ml</i>	28	d
Storage life in unopened original container		
<i>up to <= 600 ml at 0 °C to +25 °C</i>	6	month(s)
<i>up to <= 30 l at 0 °C to +10 °C Hobbock</i>	6	month(s)

Technical properties

Color in uncured condition	colorless
Color in cured condition in 0.1 mm layer thickness	colorless
Transparency in cured condition in 0.1 mm layer thickness	transparent
Color in cured condition in 1 mm layer thickness	whitish
Transparency in cured condition in 1 mm layer thickness	translucent

Parameters

Density <i>DELO Standard 13 liquid</i>	1.05	g/cm ³
Viscosity <i>liquid Rheometer Shear rate: 2 1/s Gap: 500 µm</i>	30000	mPa·s
Viscosity <i>liquid Rheometer Shear rate: 10 1/s Gap: 500 µm</i>	10000	mPa·s
Thixotropy index <i>liquid Rheometer Gap: 500 µm</i>	4.6	
Compression shear strength <i>DELO Standard 5 Glass Al 400 nm 200 mW/cm² 10 s</i>	10	MPa
Compression shear strength <i>DELO Standard 5 Glass Stainless steel 400 nm 200 mW/cm² 10 s</i>	9	MPa
Compression shear strength <i>DELO Standard 5 Glass Glass 400 nm 200 mW/cm² 10 s</i>	9	MPa
Compression shear strength <i>DELO Standard 5 Glass PC 400 nm 200 mW/cm² 10 s</i>	10	MPa
Compression shear strength <i>DELO Standard 5 PC PC 400 nm 200 mW/cm² 10 s</i>	18	MPa
Peel resistance <i>DELO Standard 34 PC PC 400 nm 200 mW/cm² 10 s</i>	26	N/cm
Tensile strength <i>by the criteria of DIN EN ISO 527 400 nm 200 mW/cm² 60 s</i>	15	MPa
Elongation at tear <i>by the criteria of DIN EN ISO 527 400 nm 200 mW/cm² 60 s</i>	300	%

Young's modulus <i>DMTA 400 nm 200 mW/cm² 60 s</i>	370	MPa
Shore hardness D <i>by the criteria of DIN EN ISO 868 400 nm 200 mW/cm² 60 s</i>	35	
Glass transition temperature <i>DMTA 400 nm 200 mW/cm² 60 s</i>	56	°C
Coefficient of linear expansion <i>DELO Standard 26 TMA Evaluation T: -30 - 150 400 nm 200 mW/cm² 60 s</i>	190	ppm/K
Shrinkage <i>DELO Standard 13 400 nm 200 mW/cm² 60 s</i>	6.5	vol. %
Water absorption <i>by the criteria of DIN EN ISO 62 Layer thickness: 4 mm 400 nm 200 mW/cm² 60 s Type of storage: Media Medium: Distilled water Duration: 24 h</i>	1.4	wt. %

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. 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. Nothing contained herein shall be construed to indicate the non-existence of any relevant patents or to

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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

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