

DELO-PHOTOBOND® 4494

UV- and light curing acrylate adhesive, medium viscosity

Use

- universally useable for interior plastic/plastic, glass/plastic, and glass/glass bonds, e.g. bonding glass into plastic frames or clips on glass
- the combined light and UV curing also enables the curing of hard to irradiate components
- generally, the product is used in a temperature range of -40 °C up to +120 °C; related to the application, other limits may be more reasonable

Base

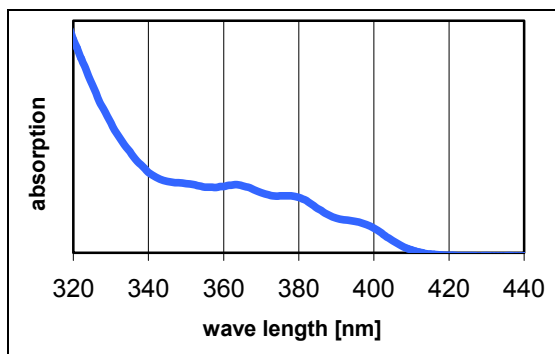
- modified urethan acrylate
- one-part, solvent-free

Curing

- by visible light or UV-light within a wavelength range of 320 - 420 nm

Absorption spectrum

photoinitiator in acrylate matrix



Curing parameters

- depending on thickness and absorption of material involved, thickness of adhesive layer, type of lamp and distance between lamp and adhesive layer

Processing

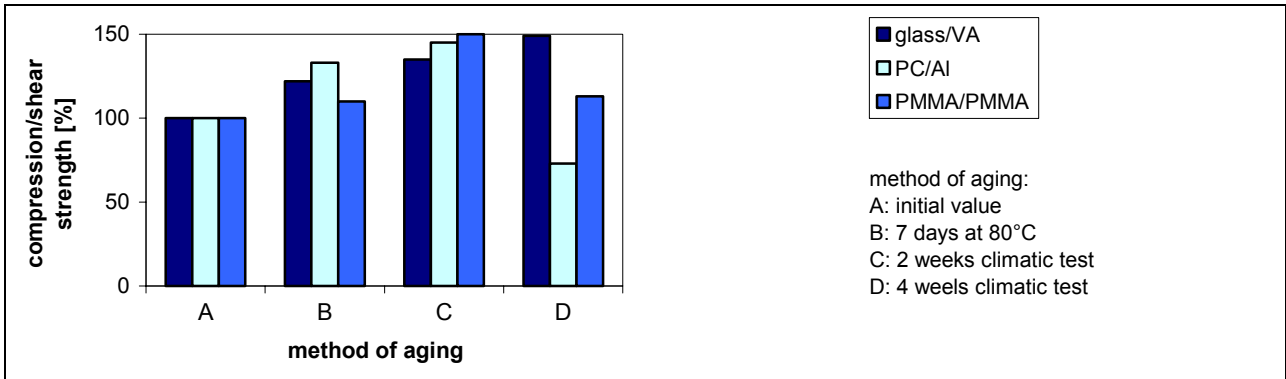
- supplied ready to use and best applied from the original container or with DELO dispensing units
- surfaces to be bonded should be dry, free from dust, grease and other contaminants
- DELOTHEN cleaners are recommended for cleaning
- use DELOTHEN EP cleaner for cleaning glass
- for further information, please see instructions for use

DELO Industrial Adhesives
DELO-Allee 1 · D-86949 Windach
Phone +49 8193 9900-0
Fax +49 8193 9900-144
E-Mail info@DELO.de · www.DELO.de

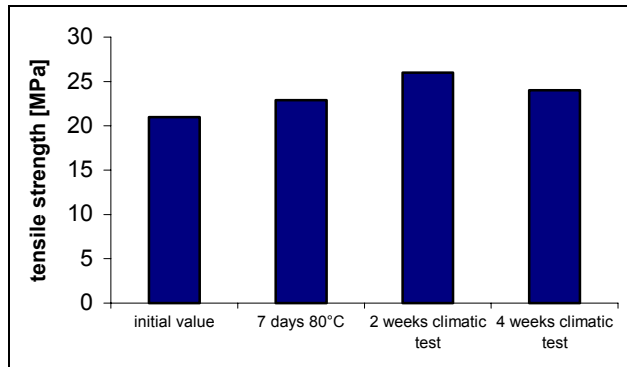
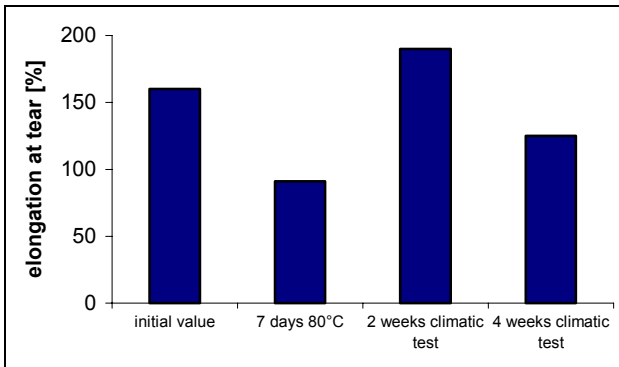
Technical data

Color cured in approx. 0.1 mm thickness of layer	colourless clear
Density [g/cm³] at room temperature (approx. 23 °C)	1.0
Viscosity [mPas] at 23 °C, Brookfield sp/r 4/5	20000
minimum curing time [s] standard DELO 23, UVA-Intensity: 60 mW/cm ² , DELOLUXcontrol	7
surface after curing	sticky
compression/shear strength glass/glass [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol, illumination time: 60 s	28
compression/shear strength glass/Al [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol, illumination time: 60 s	25
compression/shear strength glass/PC [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol, illumination time: 60 s	15
compression/shear strength glass/PMMA [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol, illumination time: 60 s	4
compression/shear strength PC/Al [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol, illumination time: 60 s	5
compression/shear strength PC/PC [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol, illumination time: 60 s	18
compression/shear strength PMMA/PMMA [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol, illumination time: 60 s	10
Tensile strength [MPa] DIN EN ISO 527	20
Elongation at tear [%] DIN EN ISO 527	160
Young's modulus [MPa] DIN EN ISO 527	400

Compression shear strength
after aging



mechanical properties
after aging



Shore hardness D
DIN 53505

62

Glass transition temperature [°C]
rheometer

120

Coefficient of linear expansion [ppm/K]
in a temperature range of +25 to +140 °C

211

Shrinkage [vol. %]
DELO Standard 13

9

Water absorption [weight %]
DIN EN ISO 62, 24 h at room temperature (approx. 23 °C)

1.3

index of refraction

1.503

Dielectric constant
RF-IV method, 1 MHz

3.5

Dielectric constant
RF-IV method, 10 MHz

3.4

Dielectric constant
RF-IV method, 100 MHz

3.2

Dielectric constant
RF-IV method, 1 GHz

3.0

Storage life
at room temperature (max. 25 °C) in unopened original container

9 months

Instructions and advice

General

The data and information provided are based on tests performed under laboratory conditions. Reliable information about the behaviour 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 behaviour of the product compared to its behaviour 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.

Instructions for use

The instruction for use is available under following address: www.DELO.de. If requested we will also be pleased to send it to you.

Occupational health and safety

see material safety data sheet

Specification

see quality assurance test report