

DELO-PHOTOBOND® PB493

UV- and light curing acrylate adhesive, high viscosity

Use

- for the bonding of interior glass partition walls
- good equalization of tensions due to high elongation at tear combined with high cohesion for good load bearing capacity
- suitable for the bonding of different materials like glass/glass, glass/metal, plastic/plastic and plastic/metal, especially for powder-coated surfaces
- the product is normally used in a temperature range of -40 °C to +120 °C; depending on the application, other limits may be more reasonable

Base

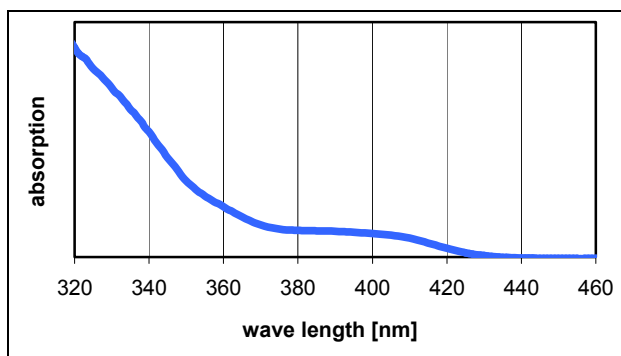
- modified acrylate
- one-component, solvent-free

Curing

- with visible light or UV light in a wavelength range of 320 - 450 nm

Absorption spectrum

photoinitiation system in acrylate matrix



Curing parameters

- dependent on material thickness and absorption, adhesive layer thickness, lamp type and distance between lamp and adhesive layer

Processing

- supplied ready for use and can be processed well from the original container or with DELO dispensing units
- 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
- use DELOTHEN EP cleaner for the cleaning of glass
- for further information please refer to the instructions for use

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Technical data

Color

cured in a layer thickness of approx. 0.1 mm

colorless clear

Density [g/cm³]

at room temperature (approx. 23 °C)

1.02

Light fastness

after exposure to UV light in sunlight simulator

DELO Standard 25

duration of exposure in sunlight simulator	0 h	500h	1000 h
chromaticity coordinate of the L,a,b-color-space	4,56	4,08	3,76

Viscosity [mPas]

at 23 °C, Brookfield rpm 7/5

50000

Minimal curing time [s]

DELO Standard 23, UVA intensity: 60 mW/cm², DELOLUXcontrol

20

Surface

tacky

Compression shear strength glass/glass [MPa]

DELO Standard 5

UVA intensity: 55 - 60 mW/cm², DELOLUXcontrol, irradiation time: 60 s

10

Compression shear strength glass/Al [MPa]

DELO Standard 5

UVA intensity: 55 - 60 mW/cm², DELOLUXcontrol, irradiation time: 60 s

12

Compression shear strength glass/PC [MPa]

DELO Standard 5

UVA intensity: 55 - 60 mW/cm², DELOLUXcontrol, irradiation time: 60 s

9

Compression shear strength glass/PMMA [MPa]

DELO Standard 5

UVA intensity: 55 - 60 mW/cm², DELOLUXcontrol, irradiation time: 60 s

6

Compression shear strength PC/Al [MPa]

DELO Standard 5

UVA intensity: 55 - 60 mW/cm², DELOLUXcontrol, irradiation time: 60 s

8

Compression shear strength PC/PC [MPa]

DELO Standard 5

UVA intensity: 55 - 60 mW/cm², DELOLUXcontrol, irradiation time: 60 s

11

Compression shear strength PMMA/PMMA [MPa]

DELO Standard 5

UVA intensity: 55 - 60 mW/cm², DELOLUXcontrol, irradiation time: 60 s

7

Tensile strength [MPa]

DIN EN ISO 527

12

Elongation at tear [%]

DIN EN ISO 527

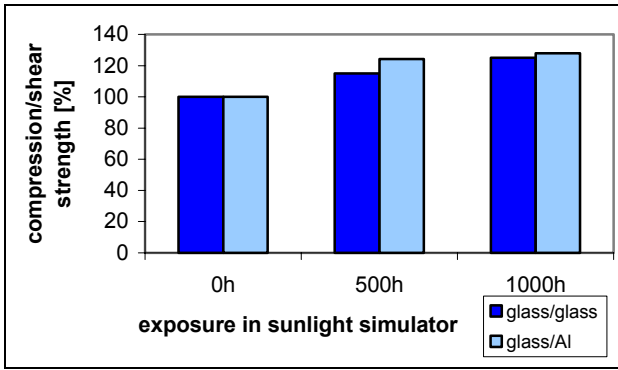
280

Young's modulus [MPa]

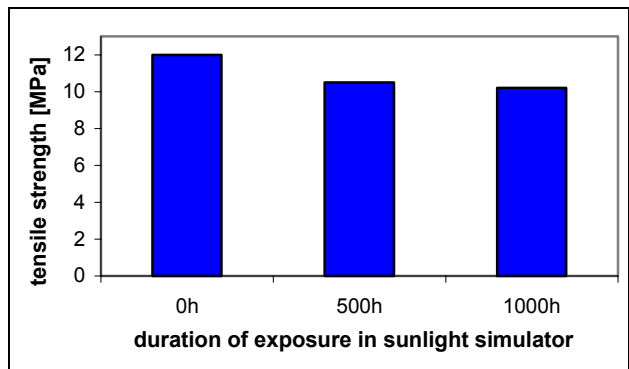
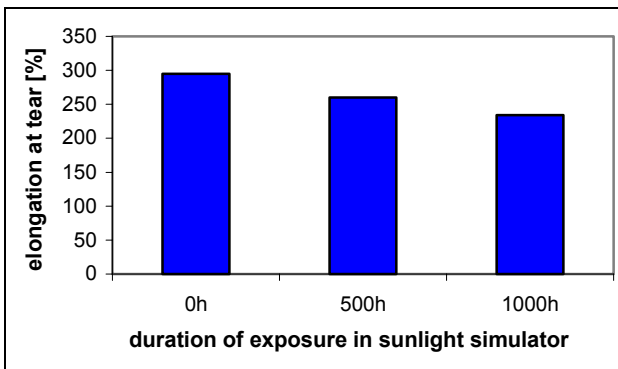
DIN EN ISO 527

80

Compression shear strength
after exposure to UV light in a sunlight simulator



Material properties
after exposure to UV light in a sunlight simulator



Shore hardness D
DIN 53505

35

Glass transition temperature [°C]
rheometer

60

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

215

Shrinkage [vol. %]
DELO Standard 13

7

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

2.5

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

4 weeks

Storage life
at approx. +5 °C in unopened original container

6 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.

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 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.

Instructions for use

The instructions for use of DELO-PHOTOBOND 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

see quality assurance test report