

DELO® KATIOBOND® 055

Light-activated adhesive, high-viscous

Base

- modified epoxy resin
- one-component, solvent-free, light-activated, thixotropic

Use

- for the bonding of metal, glass, plastic and other materials as well as for the coating, fixing or sealing of electronic components
- the cured product is normally used in a temperature range of -40 °C to +150 °C; depending on the application, other limits may be more reasonable
- compliant with RoHS directive 2015/863/EU

Processing

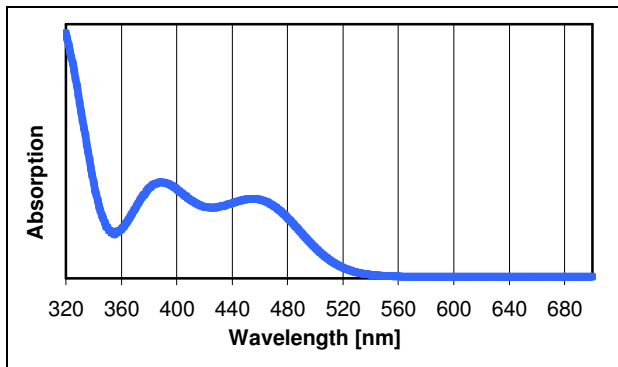
- the product is supplied ready for use; in case of cool storage, it must be ensured that the container is conditioned to room temperature before use
- the containers are conditioned at room temperature (max. 25 °C); additional heat addition is not allowed
- the adhesive is usually applied by dispensing
- the adhesive 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
- when using aqueous cleaners with alkaline properties, they must be removed from the bonding surface after cleaning through appropriate rinsing cycles
- dispensing valves and product-bearing elements must be carefully cleaned before use, residues of other products must be completely removed; acetone or DELOTHEN EP are recommended as cleaners
- for further information please refer to our instructions for use DELO KATIOBOND.

Curing

- curing or activation with visible light in a recommended wavelength range of 400 - 550 nm
- the cationic curing mechanism enables adhesive curing after the joining of opaque components after sufficient irradiation
- after irradiation curing until final strength within 24 h at room temperature
- increased temperatures accelerate the reaction, lower temperature decelerate it
- increased intensities shorten the required irradiation time, lower intensities prolong it

Absorption spectrum

- photoinitiation system in epoxy resin basic matrix



Curing parameters

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

Technical data

Color cured in a layer thickness of approx. 0.1 mm	brown milky
Density [g/cm³] at room temperature (approx. 23 °C)	1.1
Viscosity [mPas] at 23 °C, Brookfield spindle/rpm 7/5	45000
Thixotropy index	5
Recommended irradiation time [s] UVA-intensity: 55 - 60 mW/cm ² DELOLUXcontrol	30
Curing time until final strength [h] at room temperature (approx. 23 °C) after irradiation	24
Compression shear strength glass/glass [MPa] DELO Standard 5 UVA intensity: 55 - 60 mW/cm ² DELOLUXcontrol, irradiation time: 30 s curing time: 24 h at room temperature (approx. 23 °C)	10
Tensile strength [MPa] DIN EN ISO 527	14
Elongation at tear [%] DIN EN ISO 527	1
Young's modulus [MPa] DIN EN ISO 527	1380
Water absorption [weight %] according to DIN EN ISO 62, 24 h at room temperature (approx. 23 °C)	0.1
Specific volume resistance [Ωcm] VDE 0303, part 3	>1xE13
Surface resistance [Ω] VDE 0303, part 3	>1xE13
Dielectric strength [kV/mm] VDE 0303, part 2	12
Dielectric constant VDE 0303, part 4	2.9

Storage life at room temperature (0 °C to +25 °C)
in unopened original container

12 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. 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 constitute a permission, encouragement or recommendation to practice any development covered by any patents, without permission of the owner of this patent.

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 of DELO KATIOBOND 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

The properties in italics are part of the specification. Ranges with clear limits are defined for them and others, where applicable. In the course of the QA test, each batch is tested for these properties and the maintenance of the limits is ensured. The measuring methods used can deviate from those specified in the data sheet. Details can be found in the QA test report.