

DELO-KATIOBOND® GE680

UV-curing adhesive, highly viscous

Base

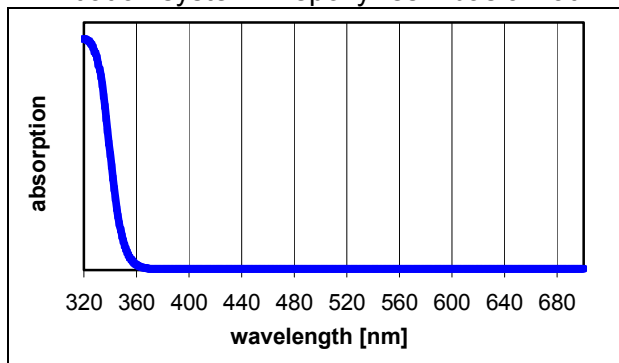
- modified epoxy resin
- one-part, solvent-free, UV-curing

Curing

- curing with UVA-light in a recommended wavelength range of 320 - 400 nm
- high initial strength after exposure to light, thus complete protective function
- further curing until final strength 24 h at room temperature

Absorption spectrum

- initiation system in epoxy resin basic matrix



Curing parameters

- depend on coating thickness of the potting compound, type of lamp and intensity of illumination

Use

- in particular for potting chip modules
- especially suited for potting ICs during processing in the Chip-on-Board-Technology
- allows to realise shortest cycle times, to increase productivity and to decrease costs

Application

- the adhesive is ready-for-use on delivery; if stored at cool temperatures or low temperatures, it must be ensured that the container is conditioned to room temperature before use
- the adhesive can be applied through dispensing
- the surface areas which are to be bonded must be dry, free of dust and grease as well as of other contaminants
- The post curing potential of the adhesive decreases, if the components are warmed up to approx. 125 °C directly before exposure. This could result in improved reliability values
- if aqueous detergents with basic properties are used, they must be removed from the bond surface through appropriate rinsing cycles after the cleaning process
- dosing valves and product guiding parts must carefully be cleaned before use, residues of other products must totally be removed. We recommend isopropanol, acetone or a mixture of

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both for cleaning

Technical data

colour cured in approx. 0.1 mm thickness of layer	milky translucent
colour cured in approx. 0.5 mm thickness of layer	milky white
filler content [weight %]	75
filler particle size [μm] d 99	90
density [g/cm^3] calculated, at room temperature (approx. 23 °C)	1.8
curable coating thickness [mm] standard DELO 20 UVA-intensity: 55 - 60 mW/cm ² DELOLUXcontrol, DELOLUX 03	4
viscosity [mPas] at 23 °C, brookfield sp/rpm 7/5	112000 thix
processing time at room temperature (approx. 23 °C)	1 week
curing time until initial strength [s] UVA-intensity: 55 - 60 mW/cm ² , DELOLUXcontrol	30
curing time until final strength [h] at room temperature (approx. 23 °C) after illumination	24
compression/shear strength glass/glass [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² DELOLUXcontrol, illumination time: 30 s curing time: 24 h at room temperature (approx. 23 °C)	31
compression/shear strength glass/FR4 [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² DELOLUXcontrol, illumination time: 30 s curing time: 24 h at room temperature (approx. 23 °C)	19
compression/shear strength glass/Al [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² DELOLUXcontrol, illumination time: 30 s curing time: 24 h at room temperature (approx. 23 °C)	20
compression/shear strength glass/PBT [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² DELOLUXcontrol, illumination time: 30 s curing time: 24 h at room temperature (approx. 23 °C)	6
compression/shear strength glass/PC [MPa] standard DELO 5 UVA-intensity: 55 - 60 mW/cm ² DELOLUXcontrol, illumination time: 30 s curing time: 24 h at room temperature (approx. 23 °C)	10
tensile strength [MPa] DIN EN ISO 527	41
elongation at tear [%] DIN EN ISO 527	0.6
Young modulus [MPa] DIN EN ISO 527	6900
shore hardness D DIN EN ISO 868	91

glass transition temperature [°C] TMA	120
coefficient of elongation [ppm/K] TMA, in a temperature range of +30 to +120 °C	32
shrinkage [vol. %] standard DELO 13	2
water absorption [weight %] DIN EN ISO 62	0.1
recommended long-time temperature range of use [°C]	-40 to +150
short-time temperature of use [°C]	180
ion content Cl- [ppm] extraction	< 10
ion content F- [ppm] extraction	< 100
ion content Na+ [ppm] extraction	< 10
ion content K+ [ppm] extraction	< 10
specific volume resistance [Ω cm] VDE 0303, part 3	1.9xE16
surface resistance [Ω] VDE 0303, part 3	1.8xE13
dielectric constant RF-IV method, 1 MHz, at 25 °C +/- 3 °C	3.5
dielectric constant RF-IV method, 10 MHz, at 25 °C +/- 3 °C	3.5
dielectric constant RF-IV method, 100 MHz, at 25 °C +/- 3 °C	3.5
dielectric constant RF-IV method, 1 GHz, at 25 °C +/- 3 °C	3.2
creep resistance CTI VDE 0303, part 1, IEC 112	> 600 M
storage life at +5 °C in unopened original container	6 months

Recommendations

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.

It is the user's responsibility to test the suitability of the product for the intended purpose 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.

Instruction 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.

Industrial health and safety standards

see material safety data sheet

Specification

see quality assurance certificate