

Technical Datasheet

Elecolit[®] 3065



Product Description

Panacol Elecolit[®] adhesives are solvent free single or two-component adhesives. They are mostly based on epoxy resin and can be cured at room temperature or by exposure of heat. Elecolit[®] adhesives are electrically and / or thermally conductive adhesives which are designed for potting, bonding or contacting of conductors.

Elecolit[®] 3065 is a UV light, light and thermally curing one part anisotropic conductive adhesive with excellent adhesion on PET foils, capton, mylar and other substrates used in the production of flexible circuits. In shadowed areas the adhesive can be cured by exposure of heat (>100 °C). In thin layers the adhesive appears transparent with slightly brown color. Elecolit[®] 3065 is usually applied with time-pressure dispensing devices. During curing process pressure (1.2 – 1.7 N/mm²) has to be applied by stamp made of glass.

Curing Properties

UV-A	VIS	Thermal curing	Activator curing
✓	✓	✓	-

✓ suitable - not suitable

The product cures within seconds with radiation in the UV-A - (320 nm - 390 nm) and visible range (405nm). For rapid and high quality crosslinking we recommend the UV devices manufactured by Dr. Hoenle AG, which complement our adhesive technology.

UV-curing (Hoenle Bluepoint LED, 365nm)		
Intensity [mW/cm ²]	Layer thickness [mm]	Time [sec]
600	0,5	30

VIS-curing (Hoenle LED Spot 100, 405nm)		
Intensity [mW/cm ²]	Layer thickness [mm]	Time [sec]
100	0,5	60

Thermal curing	[min]
Time at 100°C	10

To obtain full cure at least one substrate must be transparent to the recommended wavelength. The curing speed will depend on the intensity of light, light source, the exposure time, and the light transmittance of the substrate. Increased mechanical properties are achieved after 12 hours.

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Resin	acrylate
Appearance	transparent, brown
Filler	gold coated beads
Filler – weight [%]	3
Particle size Ø [µm]	10

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Uncured material

Viscosity [mPas]	paste-like
Density [g/cm ³] <i>PE-Norm 004</i>	1,1
Flash point [°C] <i>PE-Norm 050</i>	>93

Cured material

Hardness shore D <i>PE-Norm 006</i>	40 - 55
Temperature resistance [°C]	-50 - 150
Water absorption [mass %] <i>PE-Norm 016</i>	<1

Volume resistivity [Ohm*cm] <i>PE-Norm 040</i>	1
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Transport/Storage/Shelf Life

Trading unit	Transport	Storage	Shelf-life*
Cartridge	at room temperature max. 25°C	0°C - 10°C	At delivery min. 6 months, max. 12 months
Other packages			

***Store in original, unopened containers!**

Instructions for Use

Surface preparation

The surfaces to be bonded should be free of dust, oil, grease or other dirt in order to obtain an optimal and reproducible bond.

For cleaning we recommend the cleaner IP[®] Panacol. Substrates with low surface energy (e.g. polyethylene, polypropylene) must be pretreated in order to achieve sufficient adhesion.

Application

Our products are supplied ready to use. Depending on packaging they can be applied by hand directly from the container or semi or fully automatically. With automated application from the cartridge the adhesive is conveyed by a compressed air-operated displacement plunger via a valve in the needle. When metering low viscosity materials from bottles the adhesive is transported by a diaphragm valve. If help is required, please contact our application engineering department.

Adhesive and substrate may not be cold and must be warmed up to room temperature prior to processing.

After application, bonding of the parts should be done quickly. Elecolit[®] 3065 cures slowly in daylight. Therefore, we recommend to expose the material to as little light as possible and the use of opaque hose lines and dispensing needles. For safety information refer to our safety data sheet.

Disclaimer

The product is free of heavy metals, PFOS and Phthalates and is conform to the EU-Directive 2017/2102/EU "RoHS III".

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