

Technical Datasheet

Elecolit[®] 342



Product Description

Panacol Elecolit[®] adhesives are 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[®] 342 is a one component silver- filled electrical conductive coating agent with good glass, metal and plastic adhesion. Elecolit[®] 342 is solvent-based. Elecolit[®] 342 can be used with brush, dispenser or needle transfer. Elecolit[®] 342 distinguishes a good glass adhesion. After long-term storage, Elecolit[®] 342 must be homogenized because the silver naturally sediments in the low-viscosity resin.

Curing Properties

The product is a one-component adhesive and cures under exposure to heat. Possible curing temperatures are listed in the table below.

Thermal curing	
Time at 25°C	12 h
Time at 50°C	2 h
Time at 100°C	30 min
Time at 120°C	10 min

The curing times given are guidelines. They refer to the curing of 2 g of adhesive. The heating up of the joining members are not taken into account.

The final strength of the adhesive is reached at the earliest after 24 h.

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Resin	acrylate
Appearance	grey
Filler	silver
Filler – weight [%]	75
Particle size D95 [µm]	10

Uncured material

Viscosity [mPas] (Brookfield LVT, 25°C, Sp 3, 30rpm) <i>PE-Norm 001</i>	1 000 - 2 000
Density [g/cm ³] <i>PE-Norm 004</i>	2,3
Flash point [°C] <i>PE-Norm 050</i>	>44

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Cured material

Hardness shore D <i>PE-Norm 006</i>	75
Temperature resistance [°C]	-40 - 150
Water absorption [mass %] <i>PE-Norm 016</i>	<1

Coefficient of thermal expansion [ppm/K] below Tg <i>PE-Norm 017</i>	77
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Thermal conductivity [W/m*K] <i>PE-Norm 062</i>	2
Volume resistivity [Ohm*cm] <i>PE-Norm 040</i>	1,E-03

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.

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".

THE VALUES NOTED IN THIS TECHNICAL DATA SHEET ARE TYPICAL PROPERTIES AND ARE NOT MEANT TO BE USED AS PRODUCT SPECIFICATIONS.

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