Technical Datasheet

Elecolit® 6607



° Preliminary Datasheet. The technical statements are only guidelines and can be changed at any time.

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® 6607 is a one component, thermally conductive adhesive with excellent metal bonding. Elecolit® 6607 can be cured at 80°C within one hour. It can be processed via dispenser, screen printing or spatula.

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 | [min] | |
|----------------|-------|--|
| Time at 80°C | 60 | |
| Time at 120°C | 30 | |
| Time at 150°C | 10 | |

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.

Technical Data

Resin epoxy
Appearance grey
Filler aluminium oxide
Filler – weight [%] 50

Uncured material

| Viscosity [mPas] (Kinexus Rheometer, 25°C, 5s ⁻¹) PE-Norm 064 | 50 000 - 65 000 |
|---------------------------------------------------------------------------|-----------------|
| Density [g/cm³] PE-Norm 004 | 1,75 |
| Flash point [°C] PE-Norm 050 | >100 |
| Worklife time [h] at room temperature | 48 |

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Cured material

| Hardness shore D PE-Norm 006 | 78 - 88 |
|------------------------------|-----------|
| Temperature resistance [°C] | -40 - 200 |

| Glass transition temperature DSC [°C] PE-Norm 009 | 90 - 115 |
|---------------------------------------------------------------|----------|
| Coefficient of thermal expansion [ppm/K] below Tg PE-Norm 017 | 37 |
| Coefficient of thermal expansion [ppm/K] above Tg PE-Norm 017 | 146 |

| Thermal conductivity [W/m*K] PE-Norm 062 | 1,3 |
|------------------------------------------|---------|
| Dielectric strength [kV/mm] | 18 |
| Volume resistivity [Ohm*cm] PE-Norm 040 | 2,0E+15 |

| Young's modulus E [MPa] | 1816 |
|-------------------------|------|
| PE-Norm 022 | 1010 |

Transport/Storage/Shelf Life

| Trading unit | Transport | Storage | Shelf-life* |
|----------------|-----------|---------|---------------------------|
| Cartridge | -20°C | -20°C | at dalivary may 2 months |
| Other packages | | -20 C | at delivery max. 3 months |

^{*}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.

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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".

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