**Technical Data Sheet**
**Rev Date: 19.01.2024**

# EUROBOND Elecolit 325

## Product Description

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 ®325 is a silver-filled, solvent-free 2-component epoxy resin adhesive. Elecolit ® 325 can be used with dispenser or punch. Very short curing times are possible at elevated temperatures. Elecolit ® 325 is characterized by good conductivity values in "cold hardening" and good gap filling capacity.

Thawing time before usage will be approx. 1h for 30cc and 50cc syringes. Try to avoid condensation during thawing process. Once Elecolit ® 325 is thawed do not re-freeze again.

## Curing Properties

This product is a two-component adhesive. The adhesive can be cured at room temperature or thermally under exposure to heat after mixing the two components in the ratio indicated. Possible curing temperatures are listed in the table below.

| Thermal curing | |
|---|---|
| Time at 25°C | 16 h |
| Time at 50°C | 2 h |
| Time at 100°C | 30 min |
| Time at 120°C | 15 min |
| Time at 150°C | 5 min |

The adhesive can be applied after mixing the components within the pot life. To determine the pot life, the time it takes to double the increase in viscosity after mixing of the two components is used.

| Curing | |
|---|---|
| Pot life | 2 h |
| Mixing ratio | 1:1 |

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 | silver |
| Filler – weight [%] | 71 |
| Particle size D95 [µm] | 26 |

## Uncured material

| | |
|---|---|
| Viscosity mix [mPas] | paste-like |
| Density [g/cm³] | 3,2 |
| PE-Norm 004 | |
| Work life time, unmixed [h] at room temperature | 24 |

**Contact Details**
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**Cured material**

| | |
|---|---|
| Hardness shore D<br>PE-Norm 006 | 79 |
| Temperature resistance [°C] | -40 - 150 |
| Water absorption [mass %]<br>PE-Norm 016 | <1 |

| | |
|---|---|
| Glass transition temperature DSC [°C]<br>PE-Norm 009 | 25 - 45 |
| Coefficient of thermal expansion [ppm/K] below Tg<br>PE-Norm 017 | 31 |

| | |
|---|---|
| Thermal conductivity [W/m*K]<br>PE-Norm 062 | 4 |
| Volume resistivity [Ohm*cm]<br>PE-Norm 040 | 5,E-04 |

| | |
|---|---|
| Lap shear strength (steel/steel) [MPa]<br>Curing at room temperature<br>PE-Norm 013 | 8 |
| Lap shear strength (steel/steel) [MPa]<br>Curing 15 min at 120°C<br>PE-Norm 013 | 17 |

**Transport / Storage / Shelf Life**

| Trading unit | Transport | Storage | Shelf-life* |
|---|---|---|---|
| Cartridge | -20°C | -20°C | at delivery<br>6 months |
| Other packages | at room temperature<br>max. 25°C | 0°C - 10°C | |

*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 IPA ®. 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 technical 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.

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