Technical Data Sheet
Rev Date: 19.01.2024

EUROBOND Elecolit 414

Product Description

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 414 is a single component silver-filled, electrical conductive coating substance that hardens into a flexible, chemical resistant, elastic film.

When used with common plastics Elecolit 414 has outstanding bonding properties (among others on polyamide). It is, for example, used in foils for exterior mirrors that are heated. After prolonged storage, the product has to be homogenized because the silver naturally sediments in the low-viscosity resin.

Thawing time before usage will be approx. 1h for 30cc cartridges. Try to avoid condensation duringthawing process. Once Elecolit 414 must be storedvertically with cartridge tip downwards. 414 is thawed do not re-freeze again. Elecolit 414 must be stored vertically with cartridge tip downwards.

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 70°C	16
Time at 125°C	8
Time at 150°C	5

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	polyester
Appearance	grey
Filler	silver flakes
Filler – weight [%]	87
Particle size D95 [µm]	16

Uncured material

Viscosity [mPas] (Brookfield LVT, 25°C, Sp 4 , 6 rpm) PE-Norm 001	20 000 - 25 000
Density [g/cm³] PE-Norm 004	2,84
Flash point [°C] PE-Norm 050	>58
Work life time [h] at room temperature	6

Contact Details
TECHSiL Limited
Unit 34, Bidavon Industrial Estate, Waterloo Road, Bidford on Avon, Warwickshire, B50 4JN
+44(0)1789 773232 | sales@techsil.co.uk | www.eurobond-adhesives.co.uk

Cured material

Hardness shore D PE-Norm 006	55
Temperature resistance [°C]	-55 - 200

Glass transition temperature DSC [°C] PE-Norm 009	5,E-05

Volume resistivity [Ohm*cm] PE-Norm 040	5,E-05

Transport / Storage / Shelf Life

Trading unit	Transport	Storage	Shelf-life*
Time at 70°C	-20°C	-20°C	At delivery min. 6 months,
Time at 125°C	at room temperature 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. 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 should 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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