



UK DISTRIBUTORS OF
REINHARDT-TECHNIK
 Metering & Mixing
 Dispensing Systems



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Elecolit® 3653 – Technical data sheet

Elecolit ® 3653 is a 1K silver-filled, solvent-free conductor adhesive. It is used in applications that are subject to vibrations or quick temperature fluctuations. The product may be processed via dispenser or stamping. Elecolit ® 3653 is a single component product and can be cured thermally in the shortest amount of time. After a long time storing at room temperature sedimentation of the filler particle will occur. Therefore we recommend mixing the product well to re-homogenize the material before usage.

Shelf life: 6 months at 5°C

Technical Data

Colour: Silver
 Resin: Epoxy
 Filler: 80% Silver approx.

Uncured Properties

Viscosity (Brookfield LVT/25°C) [mPa*s]	PE-Norm P001	8000 to 13000
Flash Point [°C]	PE-Norm P050	> 100
Density [g/cm³]	PE-Norm P003	3.7 approx.
Thixotropy index (3/30 rpm)	PE-Norm P061	2.22

Curing

15 hours at	80 °C	0.006 Ohm x cm
20 minutes at	110 °C	0.01 Ohm x cm
10 minutes at	120 °C	0.005 Ohm x cm
5 minutes at	150 °C	0.002

Full Strength: 24 hours

Cured Properties

Temperature Resistance [°C]	PE-Norm P030	-40 to 180
Hardness [Shore D]	PE-Norm P052	60 to 78
Volume resistivity [Ohm x cm]	ASTM-D-257-93	0.005
Water Absorption [mass-%]	PE-Norm P053	< 0.3
Tg [°C] (DSC)	PE-Norm P009	50 to 60
CTE [ppm/K]	PE-Norm P017	77
Thermal conductivity [W\m-K]	ASTM 1530	2

Mechanical Data

Lap Shear Strength (Alu/Alu) [MPa]	PE-Norm P013	16.7 approx.
E-Modul [MPa]	PE-Norm P056	2210

Instructions for Use

Surface Preparation

The surfaces to be bonded should be free of dust, oil, fat or any other dirt in order to optimise reproducible results. Lightly soiled surfaces can be cleaned with cleaner IPA to create a suitable working surface.

Application

Our products are delivered ready for use. As soon as you receive them, you can dispense or use them for screen printing processes. You should store the products at 5°C for longer shelf life time. Before using acclimate the adhesive up to room temperature. Liquid Elecolit products have to be homogenised well before application. Paste-like products can be used directly.

1-C Products have no mixing ration and pot life time.

Curing

For curing heat must be applied. The polyaddition starts at temperature over 100°C. Higher temperature will reduce the curing time. For detailed curing information, please look into the technical data sheet. Higher curing temperature will lead to better electrical conductivity and less volume resistivity.

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