

### ER1137

#### Epoxy Resin

#### DESCRIPTION

**ER1137** is a low viscosity, hot or cold curing resin with superior adhesive properties. The cured material is tough however flexibility can be adjusted by altering the amount of hardener used. Increasing the amount of hardener will produce a more flexible product and decreasing the amount of hardener will produce a more rigid product. However, this should only be carried out after careful testing.

READ ENTIRE TECHNICAL BULLETIN BEFORE USING THIS PRODUCT

#### FEATURES AND BENEFITS

- Excellent adhesion to a wide variety of substrates
- Excellent electrical properties and wide operating temperature range
- Long useable life and low mixed system viscosity; facilitates ease of application
- Versatile product; can adjust hardener level to meet a range of flexibility requirements

#### APPROVALS

Standard	Status
RoHS Compliant (2015/863/EU)	Yes
UL Approval	No

#### PRODUCT INFORMATION

For available packaging sizes please visit:

[electrolube.com](http://electrolube.com)

### PHYSICAL PROPERTIES

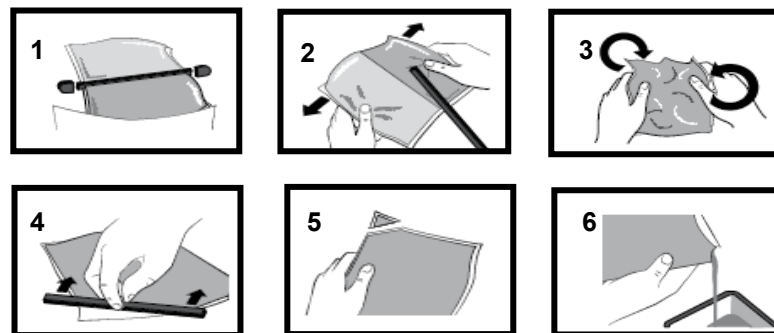
Category	Results
<b>Liquid Properties</b>	
Base Material	Epoxy
Color Part A – Resin Part B - Hardener	Black Amber
Density Part A - Resin (g/mL) Part B - Hardener (g/mL)	1.13 0.94
Viscosity (mPa s 20 to 25 °C) Part A Part B Mixed System	1000 200 700
Mix Ratio Weight Volume	2:1 1.66:1
Usable Life (20 °C)	2 to 4 hours
Gel Time (25 °C)	6 hours
Cure Time 25 °C 80 °C 100 °C	48 hours 1 hour 30 minutes
Storage Conditions	35 °C
Shelf Life	24 Months
<b>Cured System</b>	
Color (Mixed System)	Black
Thermal Conductivity (W/m.K)	0.20
Cured Density (g/mL)	1.06
Temperature Range (°C)	-40 to 120

Category	Results
Max Temperature Range (Short Term (°C)/30 Mins) (Application and Geometry Dependent)	+130
Volume Resistivity (ohm-cm)	10 <sup>14</sup>
Dielectric Strength (kV/mm)	12
Shore Hardness	D80
Flame Retardancy	No
Tensile Strength (kg/mm <sup>2</sup> )	180
Compressive Strength (MPa)	90
Deflection Temperature (°C)	35
Coefficient of Expansion (ppm/°C)	100
Loss Tangent @ 50 Hz	0.01
Permittivity @ 50 Hz	4.5
Comparative Tracking Index	Not Measured
Water Absorption (9.7mm thick disk, 51mm diameter) 10 days @ 20 °C / 1 hour @ 100 °C	0.9% / 1.5%
Elongation at Break	2.5%

### APPLICATION GUIDELINES – RESIN PACKS

#### Mixing Procedures

When in Resin pack form, the resin and hardener are mixed by removing the clip and moving the contents around inside the pack until thoroughly mixed. To remove the clip, remove both end caps, grip each end of the pack, and pull apart gently. By using the removed clip, take special care to push unmixed material from the corners of the pack. Mixing normally takes from three to four minutes depending on the skill of the operator and the size of the pack. Both the resin and hardener are evacuated prior to packing so the system is ready for use immediately after mixing. The corner may be cut from the pack so that it may be used as a simple dispenser. There is also a YouTube video ([Epoxy Mixing Instructions](#)) available on the Electrolube channel to show the mixing process.



### APPLICATION GUIDELINES - BULK

#### Bulk Mixing

When mixing, care must be taken to avoid the introduction of excessive amounts of air. Automatic mixing equipment is available which will not only mix both the resin and hardener accurately in the correct ratio but do this without introducing air. Containers of Part A (Resin) and Part B (Hardener) should be kept sealed at all times when not in use to prevent the ingress of moisture. Bulk material must be thoroughly mixed before use. Incomplete mixing or use of the wrong mix ratio will result in erratic or partial curing.

### ADDITIONAL INFORMATION

**Cleaning:** It is far easier for machines & containers to be cleaned before the resin has been allowed to cure. RRS is suitable for cleaning machines and containers and cured resin may be slowly softened and removed by soaking in our RRS.

**Storage:** When storing under very cold conditions, the hardener may crystallize. If this occurs, simply warm (40 °C) the container gently until all crystals have re-melted.

Revision 4: Mar 2019

### SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

### CONTACT INFORMATION

To confirm this document is the most recent version, please contact  
**TechnicalSupportTeam@hkw.co.uk**  
[www.electrolube.com](http://www.electrolube.com)

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE . Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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