



Technical Data Sheet

UR5604 Polyurethane Resin

Product Description

UR5604 is a two part, high performance polyurethane especially formulated for potting and encapsulating.

Features

- Good Electrical Properties
- Excellent Adhesion
- Low Water Absorption
- Flame Retardant – fully approved to UL 94-V-0
- Contains No Halogens
- Low mixed system viscosity
- Non Toxic
- Long pot life

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| Approvals: | RoHS Compliant | Yes |
| | UL Approval | UL94 V-0 |

Typical Properties:

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| Liquid Properties: | Base Material | Polyurethane |
| | Density Part A - Resin (g/ml) | 1.62 |
| | Density Part B - Hardener (g/ml) | 1.21 |
| | Part A Viscosity (mPa s @ 23°C) | 20000 |
| | Part B Viscosity (mPa s @ 23°C) | 50 |
| | Mixed System Viscosity (mPa s @ 23°C) | 2000 |
| | Mix Ratio (Weight) | 5.21:1 |
| | Mix Ratio (Volume) | 3.88:1 |
| | Usable Life (20°C) | 40 mins |
| | Gel Time (23°C) | 90 mins |
| | Cure Time (23 °C) | 24 hours |
| | Cure Time (60 °C) | 3 hours |
| | Colour Part A - Resin | Black |
| | Colour Part B - Hardener | Brown |
| | Storage Conditions | Dry Conditions: Above 15°C, Below 35°C |
| | Shelf Life | 12 months |
| | Exotherm (Measured on 100ml sample in a cylinder of diameter 49.4mm @ 23°C) | < 35°C |
| | Shrinkage | < 1% |

General

Sedimentation of the resin has been minimised by careful attention to the formulation. However, any sediment which may have occurred over long periods of time must be dispersed before removing any material from the container. This dispersion can be carried out (if necessary) by stirring with a broad bladed spatula or gently rolling the can. Take care not to introduce excessive amounts of air during this operation or it may be necessary to re-evacuate the resin. Sedimentation will be accelerated by storage at high temperatures. Sedimentation found in resin packs forms no problem since the sediment is re-mixed when the pack is used.

Additional Information

Curing Schedule

Do not heat cure large volumes immediately. Allow these to gel at room temperature and post-cure at high temperature if required (refer to liquid properties for details). Small volumes (250ml) may be heat cured immediately.

Cleaning

It is far easier for machines & containers to be cleaned before the resin has been allowed to cure. Electrolube's OP9004 is a non-flammable cleaner designed for this purpose. Cured resin may be slowly softened and removed by soaking in our OP9003 Resin Stripper.

Storage

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

Health & Safety

Always refer to the Health & Safety data sheet before use. These can be downloaded from www.electrolube.com

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