Polyurethane Resin

Description
This is a two-part, room temperature curing polyurethane system designed for potting and encapsulation. The cured resin system exhibits a high degree of toughness. This is suited to applications with stringent temperature cycling.

Typical Properties

Liquid Properties
- Base Material: Polyurethane
- Density Part A - Resin: 1.65g/ml
- Density Part B - Hardener: 1.24g/ml
- Part A Viscosity: 20000mPa s @ 23°C
- Part B Viscosity: 50mPa s @ 23°C
- Mixed System Viscosity: 2000mPa s @ 23°C
- Mix Ratio (Weight): 6.93:1
- Mix Ratio (Volume): 5.18:1
- Usable Life (20°C): 30 mins
- Gel Time (23°C): 60 mins
- Cure Time (23°C): 24 hours
- Colour Part A - Resin: White
- Colour Part B - Hardener: Dark Amber
- Shrinkage: < 1%
- Exotherm (Measured on 100ml sample in a cylinder of diameter 49.4mm @ 20-25°C): < 35°C

Cured System
- Thermal Conductivity: 0.45W/m.K
- Cured Density: 1.59g/ml
- Temperature Range: -40°C to +100°C
- Dielectric Strength: 18kV/mm
- Volume Resistivity: 10^14 Ω-cm
- Shore Hardness: D50
- Colour (Mixed System): White
- Flame Retardancy: Meets UL94 V-0
- Permittivity @ 50 Hz: 3.9
- Comparative Tracking Index: >600 Volts
- Water Absorption (9.7mm thick disk, 51mm diameter)
  10 days @ 20°C/1 hour @ 100°C: <0.5%/1%

General Properties
- Packaging: 250g Resin Pack
- Shelf Life: 12 months
- Storage: Dry Conditions: Above 15°C, Below 35°C
- UL Approval: Meets UL94 V-0
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Mixing
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 two 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.

Part Number Table

<table>
<thead>
<tr>
<th>Description</th>
<th>Part Number</th>
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<tbody>
<tr>
<td>Polyurethane Resin, Tough White, 250g, Pack</td>
<td>MC002564</td>
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