

Polyurethane Resin



**RoHS
Compliant**

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

Description	Part Number
Polyurethane Resin, Tough White, 250g, Pack	MC002564



V1.0