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TECHNICAL DATA SHEET

NP1004 LOW VISCOSITY POLYURETHANE SYSTEM

FULLY ROHS COMPLIANT CONTAINING NO HEAVY METALS

Product Description

NP1004 is a two-part polyurethane resin system. The mixed system has a low, penetrating viscosity and a long pot life. The cured resin is flame retardant and has excellent electrical properties. The resin has very good adhesive characteristics to a wide range of substrates.

The LED Range of Resins

The electronics and the power supplies behind the LEDs require advanced resins for protection. The NP1004 polyurethane system offers a cost-effective solution to power supply problems. The low penetrating viscosity (15 poise) prevents voids formation that would inhibit performance in high voltage transformers. The outstanding electrical properties (20 kV/mm electric strength) and physical flexibility ensure that the NP1004 is not only cost effective but an excellent resin for a wide range of power products.

Typical Uncured Physical Properties

Property	Base	Hardener	Mixed System
Viscosity (mPas)	3000	70	1500
Colour	Black	Brown	Black
Specific Gravity	1.42	1.22	1.35
Mix Ratio	4.23 3.75	1 1	By Weight By Volume

Pot Life	23 Minutes	200 g @ 23°C
Gel Time	69 Minutes	200 g @ 23°C
Complete Cure	48 Hours	200 g @ 40 °C

FEATURES

- Low Mix Viscosity
- Cost Effective
- Excellent Electrical properties
- Contains No Heavy Metal Catalysts
- Very Good Adhesion
- Long Pot Life

APPLICATIONS

- Assemblies
- Power Supplies
- Ballasts
- Drivers

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Typical Cured Properties

Property	Result	Units
Operating Temperature	-40 to +130	°C Continuous
Shore A Hardness	90	After 72 hours
Shore D Hardness	60	After 72 hours
Electric Strength	20	kV/mm
Comparative Tracking Index	>850	V
Flammability	Self Extinguishing	
Deflection Temperature	-20	°C (Approx)

Note: The above technical information and data should be considered representative or typical only and should not be used for specification purposes.

Supply	Details
Twinpacks	Ideal for mixing without the entrapment of air.
Kits	The resin base and hardener are supplied in two separate containers, pre-weighed to facilitate accurate mixing for larger applications.
Bulk 5kg, 10kg, 20kg & 25kg	The NP1004 system is formulated to prevent sedimentation on storage. However, storage at higher ambient temperatures (above 25°C for instance) or for long times, can cause some settlement. It is important that any sediment is redispersed into the bulk resin prior to using the resin. This can be done by stirring with a long spatula.
Shelf Life	The materials should be stored in the original unopened containers under cool dry conditions at temperatures between 10 and 25°C. The shelf life is one year. Opened containers should be resealed.

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Health & Safety

Refer to Product Label and Material Safety Data Sheet for health and safety information before using this product. All Products should be used in accordance with your own COSHH Assessments. For additional health and safety information, call 01373 858234.

Technical Information

The technical information, recommendations and other statements contained in this document are basedupon tests or experience that ALH believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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