

NP1023 GENERAL PURPOSE EPOXY RESIN SYSTEM

Product Description

NP1023 is a two-part epoxy resin system that cures at room temperature to a high gloss finish. It is flame retardant and thermally conductive. The resin system is slightly flexible to allow for thermal fluctuations and is suitable for encapsulation of PCBs and general electronics.

Typical Uncured Physical Properties

Property	Base	Hardener	Mixed System
Viscosity (mPas)	55,000	600	6,000-10,000
Colour	Beige	Clear Amber	Beige
Specific Gravity	1.81	0.94	1.68
Mix Ratio	10 5.8	1 1	By Weight By Volume

Pot Life	30 Minutes	150 g @ 23°C
Gel Time	150 Minutes	150 g @ 23°C
Complete Cure	24 Hours	150 g @ 23°C
Peak Exotherm	35°C	150 g @ 23°C

Typical Cured Properties

Property	Result	Units
Operating Temperature	-40 to +130	°C Continuous
Shore D Hardness	75	
Electric Strength	15	kV/mm
Thermal Conductivity	0.85	W/mK
Volume Resistivity	1014	Ohm.cm
Loss Tangent	0.04	@ 50 Hz
Permittivity	-4.00	@ 50 Hz
Comparative Tracking Index	>850	V
Cure Shrinkage	0.3	% (volume)
Flammability	To UL 94 V-0 Level	Not Certified
Compressive Strength	120	MPa
Deflection Temperature	70	°C
Coefficient of Expansion	40	ppm/ °C
Water Absorption	0.3	% (30 days @ 20°C)
Elongation at Break	1.5	%

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

FEATURES

- High Gloss Finish
- Ambient or Elevated Temperature Dispensing and Curing
- Contains No Halogens and is Non-Toxic
- Good Thermal Conductivity to Dissipate Heat

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TECHNICAL DATA

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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	The NP1023 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.

Precautionary Information

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 based upon tests or experience that ALH

believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond ALH's control and uniquely within user's knowledge and control can affect the use and performance of an ALH product in a particular application. Given the variety of factors that can affect the use and

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