



TECHNICAL DATA

NP1850

HIGH TEMPERATURE POLYURETHANE RESIN

Product Description

NP1850 is a flexible polyurethane system capable of withstanding 155°C continuously.

Features

- * Protection up to 155°C
- * Shore A hardness 75 for delicate components
- * Low mixed viscosity
- * Excellent electrical properties

Typical Uncured Physical Properties

Property	Base	Hardener	Mixed System
Viscosity (mPas)	12,800	50	2000
Colour	Beige	Brown	Beige
Specific Gravity	1.22	1.20	1.21
Mix Ratio	3.19	1	By Weight
	3.14	1	By Volume

Pot Life (mins)	20-25	200 g @ 23°C
Gel Time (mins)	50-60	200 g @ 23°C
Complete Cure (hours)	72	200 g @ 23°C



Typical Cured Properties

Property	Result	Units
Operating Temperature	-40 to +155	°C Continuous (Dry Conditions)
Shore A Hardness	75	After 48 hours
Volume Resistivity	7×10^{14}	$\Omega \cdot \text{cm}$
Dissipation Factor	0.001-0.027	
Dielectric Constant	2.9-3.5	
Thermal Expansion	45	ppm
Thermal Conductivity	0.35	W/mK
Adhesion	Excellent	

Solvent Resistance

Solvent Resistance	Rating
Mineral Oils	Excellent
Water	Good
Superheated Water/Steam	Poor

Cure Schedule

Temperature °C	Time
23	72 hours
60	4 hours

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

Supply

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 NP1850 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 performance of an ALH product, the user is solely responsible for evaluating the ALH product and determining whether it is fit for a particular purpose and suitable for the user's methods of application.

Warranty, Limited Remedy and Disclaimer

Unless an additional warranty is specifically state on the applicable ALH product packaging or product literature, ALH warrants that each ALH product meets the applicable ALH product specification at the time ALH ships the product. ALH MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the ALH product does not conform to this warranty, then the sole and exclusive remedy is, at ALH's option, replacement of the ALH product or refund of the purchase price.

Limitation of Liability

Except where prohibited by law, ALH will not be liable for any loss or damage arising from the ALH product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.