

## PX628HP-1/NC

A high performance, two-part epoxy adhesive

### Application

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### Key Properties

- Excellent adhesion to a wide variety of substrates
- Thixotropic
- High mechanical strength
- Excellent chemical resistance
- High heat resistance
- RoHS and WEEE Compliant

### Description

- Basic Two-component epoxy system
- Resin RX628HP
- Hardener HX628HP-1

Physical Data (approx. – values)	Resin	Hardener	Composite
Colour	Beige	Amber	Beige
Specific Gravity	1.5	1.02	1.34
Viscosity (mPas) @ 25°C	Thixotropic	Thixotropic	Thixotropic

Cure Schedule (150ml)	Working Life	Gel Time	Light Handling	Full Cure
Temperature	(minutes)	(minutes)	(hours)	(hours)
RT*	15-20	20-30	48	96

\*RT is defined as 20-25°C

The above are typical values and will vary depending on the cured mass and application. Hotter temperatures may be used for faster cure but will result in higher post cure shrinkage and higher cure exotherm. Experimentation and testing is suggested to avoid side effects. For maximum properties a post cure may be required – Contact our technical service department for advice.

### Processing

Mix ratio by weight 2.96 : 1 (RX : HX)

Mix ratio by volume 2.00 : 1 (RX : HX)

Typical Properties	Result	Unit
Operating temperature range	-40 to +140	°C (application & geometry dependent)
Volume Resistivity	$1.3 \times 10^{11}$	ohm.cm
Hardness	85	Shore D
Tensile strength	30	MPa
Co-efficient of expansion	50-70	ppm/°C

### Lap Shear Adhesion

Aluminium/Aluminium	4.15 MPa
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### Approvals

RoHS compliant	Yes
UL94 V-0	No
REACH (SVHC concentration)	Refer to SDS

### Packaging

PX628HP-1/NC is available in Bulk, Twinpacks, Cartridges, kits and sets

### Availability

Available through distribution and [sales@robnor.co.uk](mailto:sales@robnor.co.uk)

### Cartridge Mixing - Part Numbers

Available on request	
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It is essential for best results that the cartridge is 'balanced' before use to ensure correct mixing. Loading the cartridge into the gun before attaching the mixer element and pumping the gun to push a small amount of the contents forward will achieve this. Wipe the excess from the cartridge tip and add the static mixer. The cartridge is now ready for use.

### Twinpacks

Available on request	
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Twinpacks are pre-weighed resin and hardener components contained in a tough flexible film, separated by a removable clip and rail. Once the clip and rail has been removed, ensure the resin and hardener is thoroughly mixed within the bag and is immediately ready for use. Mixing will normally take ~ 2 minutes due to the viscosity; but pay special attention to the corners.

Twinpacks are ideal for small to medium production runs, prototyping and on-site or field use.

The twinpack weight/volume may also be tailored to a specific size on request.

For further details please visit [www.robnor-resinlab.com](http://www.robnor-resinlab.com)

### Bulk Materials

Available on request	
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Both resin and hardener are supplied in 5kg, 25kg and 200ltr drums and fully evacuated and ready for use.

Care should be taken to ensure when mixing the resins air is not entrained in the mixture.

If this is unavoidable the mixed resin and hardener should be re-evacuated before dispensing.

The bulk resin and hardener materials can be dispensed from suitable dispensing machinery, details provided by Fluid Research on request.

### Kits and Sets

Available on request	
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Kits and Sets are provided in separate containers to the correct ratio.

In Kit form, pour the contents of the smaller container into the larger container and use it as a mixing vessel.

Stir well using an appropriate mixer until homogeneous.

Note: Incomplete mixing will be characterised by erratic or partially incomplete cure even after extended time periods.

### Cleaning

All equipment contaminated with mixed material should be cleaned before the material has hardened.

TS130 is a suitable non-flammable cleaning agent, although other solvents may be found suitable.

TS130 will also remove cured material provided it can soak for several hours.

### Storage and Shelf Life

12 months at 25°C Bulk packaging.

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). Products in this state will not usually cure to normal and expected properties. In extreme cases it may appear solid and cured. Fluctuating temperatures (within 5 to 50°C) aggravate this phenomenon. Heating the individual component to 50 to 60°C while stirring can usually restore products to original state.

Storage at 25 +/- 10°C is optimum for most products

Some epoxy systems are prone to settling due to high filler content and should be inverted every two to three weeks to reduce the accumulation of the fillers on the bottom of the containers.

Inventory should be rotated on a FIFO (first in, first out) basis.

### Health and Safety

Please refer to RX/HX628HP-1 Health and Safety data or our Technical Service Department for individual/specific advice.

### Copyright & Warranty - Robnor Resinlab Limited

The results and information above do not constitute a specification and is given in good faith and without warranty. The information is derived from test/or extrapolations believed to be reliable and is quoted for guidance only. The product is offered for evaluation on the understanding the customer satisfies himself that the product is suitable for the intended application by proper evaluation and testing.

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