

PX628HV-2

A high strength, two-part, room temperature curing adhesive with dimensional stability

Application

Bonding of metal to metal parts, GRP and plastics

Key Properties

Excellent adhesion to a wide variety of substrates
Thixotropic
High chemical resistance

Description

- Basic Two-component epoxy system
- Resin RX628HV
- Hardener HX628HV-1

Physical Data (approx. – values)	Resin	Hardener	Mixed
Colour	Beige	Black	Black
Specific Gravity	1.70	1.82	1.74
Viscosity (mPas) @ 25°C	Thixotropic	Thixotropic	Thixotropic

Cure Schedule (1.5cm bead)	Working Life	Gel Time	Tack Free	Light Handling	Full Cure
Temperature	(minutes)	(minutes)	(minutes)	(hours)	(hours)
RT	60	90	180	24	48
Usable life in nozzle	70				

Cure Schedule (50ml)	Working Life	Gel Time	Light Handling	Full Cure
Temperature	(minutes)	(minutes)	(hours)	(hours)
RT	15-21	20-26	24	96
40°C	5	15	8	24

*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 1.87:1
Mix ratio by volume 2:1

Approvals

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

Typical Properties	Result	Unit
Hardness	70-80	Shore D
Operating Temperature	-55 to +140	°C (Application and geometry dependant)
Thermal Conductivity	1.0	W/mK
Tensile Strength	45	mPa
Compressive Yield Strength	< 10	mPa
Coefficient of Linear Expansion	40 - 60	ppm/C
Volume Resistivity	1.3×10^{10}	ohm-cm
Electric Strength	15	kV/mm
Water Absorption (7 days @ 23°C)	0.4	%

Lap Shear Adhesion

Aluminium to Aluminium	14 MPa	ABS to ABS	3.1 MPa
Copper to Copper	15 MPa	Nylon 6 to Nylon 6	2.1 MPa
Stainless Steel	18 MPa	Acrylic to Acrylic	3.2 MPa

Packaging & Part Numbers

PX628HV-2 is available in Cartridges

Availability

Available through distribution and www.resins-online.com sales@robnor.co.uk

Cartridge Mixing – Part Numbers

PX628HV-2/BK/050TC

PX628HV-2/BK/400TC

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.

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

24 months at 25 °C Specialty packaging may be less.

Cartridges should be stored horizontally

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/HX628HV-2 Health and Safety data or our Technical Service Department for individual/specific advice.

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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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