

Technical Data Sheet

PX771C

(Two-component Epoxy System)

Description

PX771C is a low viscosity unfilled epoxy resin containing reactive diluents. This material is suitable for small castings and impregnating applications. PX771C has good mechanical properties, excellent electrical characteristics and high resistance to chemical attack

Features

Low viscosity
Excellent Insulation characteristics
Transparency
Room temperature or heat cured
RoHS and WEEE compliant

Specification

Property	Resin RX771C	Hardener HY1300GB	Mixed PX771C
Colour	Clear	Amber	Amber
Specific Gravity mg/m ³	1.1	1.00	1.1
Viscosity mPa.s	1100	180	600
Mix ratio by weight	3.03:1		
Mix ratio by volume	2.7:1		
Usable life	30 minutes (150g @ 25°C)		
Gel time	60 minutes (150g @ 25°C)		

Cure schedule

Minimum Cure	Full Cure
24hours @ 25°C	48 hours @25°C
2 hours @ 60°C	8 hours @ 40°C
1 hour @ 80°C	2 hours @ 80°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 - call Robnor Technical Service Department for advice.

Typical Properties

Peak exotherm (150g @ 25°C)	90
Shrinkage % (volume)	0.6
Thermal conductivity	0.21 W/mK
Operating temperature range	-40 to +150°C (application & geometry dependent)
Electric strength	20 kV/mm
Volume Resistivity	13 ohm-cm
Shore D hardness	85
Tensile strength	70 mPa
Compressive strength	95 mPa
Deflection Temperature	60°C
Co-efficient of expansion	65-75 ppm/°C
Loss Tangent	0.040 @ 50Hz
Permittivity	3.9 @ 50 Hz
Continuous tracking index	>850 V
Water absorption	0.5% (30 days @ 20°C)
Elongation at break	3-5%

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Buy On-line: www.resins-online.com

Packaging

PX771C is available in Bulk, Twinpacks, kits & cartridges

Availability:

Available through sales@robnor.co.uk

Twinpacks

Twinpacks are pre-weighed resin and hardener contained in a tough flexible film, separated by a removable clip and rail.

Once the clip and rail is removed the resin and hardener can be thoroughly mixed within the bag and is then ready for use.

Mixing will normally take ~ 3 minutes depending on the operator and viscosity of the material.

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

Light sediment may be re-dispersed by carefully warming (to avoid distortion of the clip and rail) and kneading the pack.

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

The use of twinpacks results in reduced chemical handling and less environmental impact as the waste product is inert.

For further mixing details please visit www.robnor.co.uk

Bulk Material

PX771C is an unfilled system and is unlikely to separate or sediment.

In bulk or kit form gentle mixing with a paddle or spatula will homogenise the material before use.

In bulk or kit form evacuation may be necessary for best results.

Kits

In kit form, resin and hardener are provided in separate containers to the correct ratio.

In most cases, pour the hardener into the larger resin container and use it as a mixing vessel.

Stir well using an appropriate mixer until homogeneous.

Note: Incomplete mixing will be characterised by variable or partial cure (even after extended time periods).

Cleaning

All equipment contaminated with mixed material should be cleaned before the material has hardened. Robnor Resins TS130 is suitable non-flammable cleaning agent, although other solvents may be found suitable. TS130 will also remove cured material provided it is allowed to soak for a number of hours.

Storage and Shelf Life

Material stored in the original unopened containers under cool dry condition between 10 and 25°C will have a shelf life of at least one-year.

Once used the containers must be kept sealed to prevent effects from water, air or contaminants.

Health and Safety

Epoxy resin systems may cause sensitisation by skin contact or inhalation may be corrosive, harmful or toxic.

It is therefore strongly recommended that skin and eye contact is avoided by the using of appropriate personal protective equipment such as gloves, safety glasses or goggles and overalls.

Wash any contamination from the skin immediately and thoroughly and do not eat, smoke or drink in the working vicinity.

Under normal working conditions a good source of ventilation is adequate, however if the material is heated then local exhaust ventilation (LEV) may be required especially for curing ovens.

The above is given as a guide only; please refer to RX/HX771C Health and Safety data or our Technical Service Department for individual/specific advice.

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