Technical Data Sheet
October 2019

PX590EF

Epoxy Foam System

Application

- Suitable for void-filling applications and applications requiring a low viscosity, low density material with good adhesion

Key Properties

- Good compressive strength at low density
- Slow foaming reaction, low pressure during expansion
- Good adhesion to a variety of substrates
- Density of Approx. 0.3g/cm^3
- Good thermal performance when post cured

Description

- Basic — Two-component epoxy system*
- Resin — RX590EF
- Hardener — HX590EF

*System also available as 3 components RX, HX, and MP blowing agent for user adjustable foam density.

Physical Data (approx. – values)	**Resin**	**Hardener**	**Mixed**
Colour	White	Clear Amber	White
Specific Gravity	1.16	0.95	1.1
Viscosity (mPas) @ 25°C	6300	2000	3,000

Cure Schedule (150g)	**Cream Time**	**Gel Time**	**Light Handling**	**Full Cure**
Temperature	(minutes)	(minutes)	(hours)	(hours)
RT*	1-2	240	12	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 2.44: 1 (R:H)

Mix ratio by volume 2: 1 (R:H)

Mix ratio as 3 component system by weight 100: 27: 3 (R: H: MP) MP recommended at 2-4 phr

Typical Properties	**Result**	**Unit**
Cream Time	1-2	Minutes
Major Rise Time	15	Minutes
Total Rise Time	60	Minutes
Blow Ratio	3:1	Volume
Tack Free	240	Minutes
Operating temperature range	-40 to +150	°C (application & geometry dependent)
Hardness (Approx.)	60	Shore D
Compressive Strength	6	MPa
Flexural strength	3	MPa
Glass transition temperature	90	°C

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

Packaging

PX590EF is available in Bulk, Cartridges, kits and sets

Availability

Available through distribution and sales@robnor.co.uk

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/HX590EF Health and Safety data or our Technical Service Department for individual/specific advice.

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