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SS-EPX20575

Technical Data Sheet

Semi-rigid epoxy resin

SS-EPX20575 Introduction

SS-EPX20575 is a two-component epoxy system consisting of a resin – SS-EPX2075A and a hardener SS-EPX2075B used for impregnating, bonding and encapsulating.

Key Features

- High adhesion
- Non-toxic
- Low shrinkage
- High toughness and impact resistance
- Good electrical insulation

SS-EPX20575 Physical Data (approx. – values)

	Resin	Hardener	Mixed
Colour	Clear	Black	Black
Specific Gravity	1.2	1.0	1.1
Viscosity @ 25°C	2000mPas	10000mPas	6000mPas

SS-EPX20575 Cure Schedule (150ml sample)

Temperature	Working Life	Gel Time	Light Handling	Full Cure
10°C	6-10 mins	-	1.5 hrs	48hrs
20°C	4-6 mins	6-10mins	1 hr	24 hrs
30°C	3-4 mins	-	½ hr	12 hrs

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.

SS-EPX20575 Approvals

RoHS compliant	Yes
UL94-VO	No
REACH (SVHC concentration)	0%

SS-EPX20575 storage and shelf life

Material stored in the original unopened containers under cool dry conditions between 15°C and 25°C will have a shelf life of at least two years. Once used the containers must be kept sealed to prevent effects from water, air or contaminants.

Property	Unit	Result
Shore D Hardness		**75**
Operating Temperature	°C	**-55 to +120**
Thermal Conductivity	W/mK	**0.3**
Tensile Strength	MPa	**18**
Compressive Yield Strength	MPa	**12**
Coefficient of Linear Expansion	ppm/C	**70-90**
Volume Resistivity	ohm.cm	**12-14^{10}**
Permittivity (@25°C)	50Hz	**3.9-4.2**
Electric Strength	kV/mm	**20-25**
Elongation at Break	%	**5**
Water Absorption		
(24 hours @ 23°C)	mg	**15-25**
(30minsutes @ 100°C)	mg	**40-50**

Lap Shear Adhesion

Aluminium / Aluminium	**17 Kg/cm²**
Stainless Steel / Stainless Steel	**15 Kg/cm²**

SS-EPX20575 Mixing ration

Mix ratio by weight	100:110
Mix ratio by volume	100:100

SS-EPX20575 Packaging

Cartridges – 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.

Twin-packs – are available on request – Twin-packs 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 is removed the resin and hardener is thoroughly mixed within the bag and is immediately ready for use. Mixing will normally take about 2 minutes due to viscosity; but pay special attention to the corners. Twin-packs are ideal for small to medium production runs, prototyping and on-site or field use. The twin-pack weight/volume may also be tailored to a specific size on request. For further detail contact Silicone Solutions Ltd.

Bulk – available on request. Both resin and harder can be supplied in 5kg, 25kg and 200ltr drums, contact Silicone Solutions Ltd for more details.

Kit & Set – available on request – Please contact Silicone Solutions Ltd for more details.

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SS-EPX20575 Cleaning

All equipment contaminated with mixed material should be cleaned before the material has hardened. Use a suitable non-flammable cleaning agent.

SS-EPX20575 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 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, or where vapour levels are likely to exceed the occupational exposure limits appropriate respiratory protection must be worn. Local exhaust ventilation (LEV) may be required especially for curing ovens or where large volumes of material are curing. The above is given as a guide only; please refer to SS-EPX20575 Health and Safety data or our Technical Service department for individual/ specific advice.

Limited Warranty

Silicone Solutions Ltd warrants that its product will conform to Silicone Solutions Ltd internal specifications at the time of application or use, provided that the product is stored in accordance with Silicone Solutions Ltd recommendations and used or applied before the earliest of (1) the “use before date” indicated on the product package, (2) six months from the date of shipment, or (3) expiration of such other period or recommended storage time stated in the Silicone Solutions Ltd literature for the product. If notified in writing of a claim within six months of the products use of application, Silicone Solutions Ltd will at its option replace or refund the purchase price of any Silicone Solutions product with does not satisfy the foregoing warranty.

Limitation of Liability

Silicone Solutions Ltd shall in no event whether the claim is based on warranty, contract tort, strict liability, negligence or otherwise be liable for incidental or consequential damages, or for any other damages in excess of the amount of the purchase price. Note: For many products, Silicone Solutions Ltd may be able to offer a more extensive application specific warranty. For further information, contact Silicone Solutions Ltd Sales.