



SYNPOL PRODUCTS PRIVATE LTD.

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ODHAV, AHMEDABAD – 382 415, INDIA

PRODUCT CODE : MISC. / 10.18

Synpol 230 - Synpol 160 / Hardener 111

TYPE : Room temperature curing epoxy resin - hardener system for bonding and terminal sealing of stationery & automobile batteries and for electro-technical application.

SPECIFICATIONS :	Synpol 230	Synpol 160	Hardener 111
1) Appearance	Clear pale yellow viscous liquid	Amber colored low viscosity liquid	Pale yellow to greenish thin liquid
2) Specific gravity @ 25 ⁰ C.	1.12 - 1.13	0.95 - 0.98	0.97 - 0.99
3) Viscosity @ 25 ⁰ C. by Brookfield (spindle # 2, 100 rpm), cps.	1500 - 2500	400 - 1000	35 - 45

CHARACTERISTICS OF EPOXY SYSTEMS :

These epoxy system describes the requirement of a two component room temperature curing potting system which is characterized by the following features

	<u>Synpol 230 : Synpol 160</u>	<u>Synpol 230 : Hardener 111</u>
➤ Mixing ratio by weight	100 : 50	100 : 10
➤ Typical gel time of 100 gms mix at 30 ⁰ C	160 - 180	30 – 35
➤ Typical peak exotherm temperature ⁰ C for 100 gms mix	50 - 55	140 - 150
➤ Adhesion over plastics	Excellent	Excellent
➤ Pot life	Long	Short
➤ Exotherm temperature	Low	High
➤ Electrical & Mechanical properties	Very good	Excellent
➤ Thin film cure at room temperature	Overnight	3 - 4 hours

APPLICATIONS :

Synpol 230 and Synpol 160 / Hardener 111 is specially formulated adhesive for bonding of PP to PP, ABS and metal bonding in battery manufacturing for two wheelers, four wheelers, etc. It is also useful for bonding of lids with the container of small size & stationary VRLA batteries. These types of batteries are very useful for UPS, small telephone exchanges, etc. It is also used in the following applications.

- Casting, encapsulation and potting of electrical and electronic component
- Miniature transformers
- Coils, magnets
- HF and NF chokes
- Terminal noise filters, interference suppressers
- Capacitors
- Recorder heads
- Electronic sub-assemblies
- Circuit and connector elements
- Sockets, bases and fittings
- Mains circuit connectors

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DISCLAIMER: Above Specifications are subject to change without prior notice and company reserves the right to modify the same at any time

MATERIAL SAFETY DATA :

Product name	Synpol 230	Synpol 160	Hardener 111
Flash point ⁰ C. (Abel closed cup)	204	125	118
Flammability	Moderate fire risks.		
Toxicity	Moderately toxic by exposure and inhalation Avoid contact with skin		
Handling	Keep away from sources of ignition, provide all electric connections of flame-proof design. Wear safety glasses, rubber gloves and protective clothings.		
Emergency treatment and measures			
1 Hygienic precautions	Adequate ventilations.		
2 Hygienic treatments (First Aid)	Flush eyes thoroughly with water. Apply ophthalmic cortisone for conjunctivitis and keratities. Wash out contaminated skin with soap and water. Gastric lavage (stomach wash), if swallowed, followed by saline catharsis.		
3 Fire precautions (in case of outbreaks)	Use dry chemical or carbon dioxide. Water spray may help to keep containers cool, to dilute leaked resins and to diffuse vapours.		
Spills and leakage	Absorb liquid materials in sand and collect solid material and burn under hood in incinerator.		
Disposal and waste treatment	Spray into furnace under controlled conditions.		

STORAGE :

Synpol 230, Synpol 160 and Hardener 111 should be stored in cool place under shade. The properties are so adjusted to have storage stability of minimum 6 months.

PACKING :

25 kgs. M.S. drums and 200 kgs. M.S. barrels.

DISCLAIMER :

Information in this literature is to the best of our knowledge true and accurate. However, since conditions under which our products may be used are beyond our control, recommendations are made without warranty or guarantee.

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