ELECTROPLAST® UNIVERSAL COMPOUNDING LLP

Technical Data Sheet XLPE Compound (EP 09-Ins-MVCC/MV Cables)

Description:

EP 09 is a Vinyl Trimethoxy silane and Dycumpyl Peroxide crosslinked compound specially developed for Insulation of medium voltage (11 to 33 kV) cover conductor (**MVCC)** and **Cables**. It is much more suitable for **SIOPLAS** triple common head extrusion process in wet, and dry curing system. The base polymer is copolymer modified polyethylene suitable for 90°C continuous service temperature.

Specifications:

Cables with conductor and bondable insulation, shielding of EP 09 when made using standard manufacturing and test procedure meet the following international cable specifications:

- NEMA WC 70 & NEMA WC 71
- BS 50397, 5467, 5468, 6724, 7655
- IEC 60502
- **IS 7098 (Part-II)**

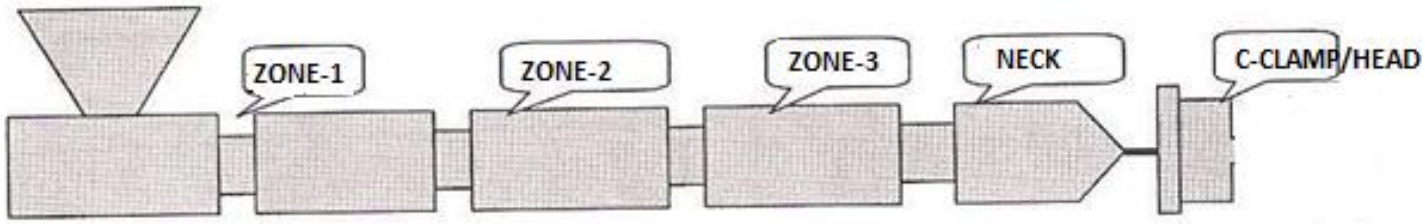
Typical Properties:

Property (After Curing)	Unit	Typical Value	Test Method
Tensile Strength	MPa	14 - 17	IS-10810 Part-7 / ASTM-D-638
Elongation at break	%	400 - 450	IS-10810 Part-7 / ASTM-D-638
Hot set at 200 °C a) Hot Elongation after 15 min. b) Permanent Set after 5 min	 % %	 60 – 90 ± 5	IS-10810 Part-30 / IEC 60811-507
Oven ageing at 135 °C, 168 hours a) Variation in Tensile Strength b) Variation in Elongation at Break	 % %	 ± 15 ± 15	IS-10810 Part-11 / IEC 60811-401
Volume Resistivity @ 25°C	Ohm-cm	1 X 10^{16}	ASTM-D-257
Dissipation factor @ 250V / 50 Hz, 25°C	-	0.0004	ASTM-D-150
Dielectric Constant @ 250V / 50Hz, 25°C	-	2.3 -2.4	ASTM-D-150

Processing Guidelines:

Suitable for conventional PE wire and cable extrusion line.

The recommended melt extrusion temperature is 110°C – 160°C. The actual processing condition must be determined by trial on specific extruder as this may vary depending on the extruder / head and tooling used.



TEMPERATURE	ZONE-1	ZONE-2	ZONE-3	NECK	HEAD
^0C	105 to 110	115 to 120	125 to 130	130 to 140	150 to 160

Pre-Drying: Semi conductive Compounds absorb moisture, which is undesirable to get smooth surface. It is therefore recommended that the compound EP 09 should be thoroughly dried (preferably by dehumidified hot air) at 70°C – 75°C for 1 hours prior to charging in extruder feed.

Shelf Life/Storage:

EP 09 XLPE Compound can be stored for 6 months from the date of manufacturing, without significant deterioration of the quality of material. However, it is recommended to be consumed as soon as possible. EP 09 XLPE Compound is recommended to be stored in a cool, dry & clean environment in unopened original packaging.

Packaging:

25 Kg packed in **Double Moisture Barrier Multilayer Alu-Myler liner** with PP Woven bag.

Safety:

EP 09 XLPE Compound is not classified as dangerous preparation.

The products are supplied in the form of free-flowing granules of approx. 2-3 mm size and can be readily handled with commercially available equipment. Handling and transporting products may generate some dust and fines, which constitute a potential hazard for dust explosion. All metal parts in the system should therefore be properly grounded. Properly designed equipment and good housekeeping will reduce the risk. Inhalation of any type of dust should be avoided as it may cause irritation of the respiratory system. The product is intended for industrial use only. MSDS is available on request.

Disclaimer:

- The specifications given are the guidelines only.
- The above compound is suitable for running different machines; however, some adjustments may be required on individual machines.
- All properties are tested as per ASTM/IS/IEC standards.
- Any data may change without prior information.
- The customers are advised to check the quality prior to commercial use. There is no guarantee and/or warrantee whatsoever, after processing.