



01/09/2014
Rev. 01

KLJ POLYMERS & CHEMICALS LIMITED

SEMI-CONDUCTING CROSS-LINKABLE COMPOUND

KLJ SC PX 535

Description:

KLJ SC PX 535 is a Semi Conducting cross-linkable conductor shielding & insulation shielding compound for medium voltage power cables. Further the material has very high resistance to scorch. It is easy to process and has low volume resistivity.

Specifications:

KLJ SC PX 535 meets the requirement of:

- IEC 60502

Properties:

Properties	Test Method	Unit	Typical Value
Density at 27°C	ASTM D 1505	g/cm ³	1.10
Tensile Strength	ASTM D 638	MPa	18
Elongation	ASTM D 638	%	200
Variation in Tensile Properties ,After ageing 168 hrs. at 121 oC	ASTM D 638	%	<25
Hot Set @ 200°C, 20N/cm ² (max.)	IS 18010 Part-30	%	50
Permanent Set after cooling (max.)	IS 18010 Part-30	%	5
DC Volume Resistivity	ASTM D 257		
- at 23°C		ohm-cm	<100
- at 90°C		ohm-cm	<1500

Processing Guidelines:

Semiconducting KLJ SC PX 535 has been formulated to be easily extrudable using conventional polyethylene extrusion lines. For optimum extrusion result with KLJ SC PX 535 use melt extrusion temperature in the range of

100 - 110°C. Triple Cross Head 120°C & Connecting Flanges 120°C. Specific processing condition can be determined only by trials on individual equipment.

Semiconducting KLJ SC PX 535 absorbs moisture, which can result in porosity in the extrudate. It is therefore recommended that the compound be thoroughly dried prior to use, usually 2-4 hours in hopper drier at 70 – 75°C.

Application

Semiconducting KLJ SC PX 535 has been designed to meet the conductivity and bondability requirements of both conductor and insulation shield for medium voltage cables.

Cables manufactured with KLJ SC PX 535 conductor and insulation shields are rated for 90°C continuous service and 130°C overload temperature.

Shelf Life/Storage:

KLJ SC PX 535 can be stored for 6 months from date of manufacturing , without significant deterioration of the quality of material. However, it is recommended to be consumed as soon as possible.

KLJ SC PX 535 is recommended to be stored in a cool, dry & clean environment in unopened original packaging.

Packaging:

- KLJ SC PX 535 granules are packed in 450/500/600/875 kg in Aluminum liner and corrugated paper boxes.

Safety:

KLJ SC PX 535 are 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 transport of the 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.
- Above compound is suitable to run on different machines; however some adjustments may be required on individual machine.
- 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 warranty what so ever, after processing.