



TECHNICAL INFORMATION

KLJ SEM 800

THERMOPLASTIC STRIPPABLE SEMI-CONDUCTING SHIELDING COMPOUND

Description:

KLJ SEM 800 is a Semi Conducting Compound having excellent heat deformation resistant characteristics and specially designed for use as a insulation shield for Sioplas based medium voltage power cables. The base polymer is copolymer modified polyolefin suitable for strippable semiconducting insulation screen application

Specification:

KLJ SEM 800 meets the requirement of:

- BS 6622
- IEC 60502

The standards referred to above is a short selection of standards and does not cover all applicable standards. Contact your KLJ representative for additional information.

Application:

Semiconducting KLJ SEM 800 has been designed to meet the conductivity and strippable requirements of insulation shield for medium voltage cables. Cables manufactured with KLJ SEM 800 insulation shields are rated for 90°C continuous service and 130°C overload temperature.

Technical Characteristics:

Properties	Unit	Test Method	Specification	Typical Value
Density	g/cm ³	IS 10810 Part 7	1.15- 1.25	1.18
Tensile Strength at Break	MPa	IS 10810 Part 7	≥ 10	12



SEMI CONDUCTING COMPOUND



9001:2015



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Elongation at Break	%	IS 10810 Part 7	≥ 150	160
After Ageing (168 h, 100 °C)				
Change of Tensile Properties	%	IS 10810 Part-11	<20	<20
Moisture Content	ppm	IS 7086	≤500	200
DC Volume Resistivity		ASTM D 257		
-23°C	ohm-cm		<100	60
-90°C	ohm-cm		<1000	350
Stripping Force	N/cm	IEC 60811-1-2	6 – 30	15

*Tensile properties on 1 mm extruded tape

Processing Guidelines

Semiconducting KLJ SEM 800 has been formulated to be easily extrudable using conventional polyethylene extrusion lines. For optimum extrusion result with KLJ SEM 800 use melt extrusion temperature in the range of 140 - 180°C. Specific processing condition can be determined only by trials on individual equipment.

Semiconducting KLJ SEM 800 absorbs moisture, which can result in porosity in the extrudate. Therefore recommended that the compound be thoroughly dried prior to use, usually 2-4 hours in hopper drier at 70 – 75°C.

Shelf Life/Storage:

- KLJ SEM 800 can be stored for 180 (In case of export packaging the shelf life is for 240 days instead of 180 days) from date of manufacturing, however it is suggested to use within 90 days from the date of receipt. Shelf life is subject to storage in original intact packing, in cool and dry place, away from sunlight and weathering, storage temperature not generally exceeding 35°C..
- Use the compound immediately.

Packaging:

KLJ SEM 800:

Form: Granules.

Package: 25 kg aluminium multilayer bag and 650 kg Octabin with aluminium liner with Top & Bottom discharge as required by the customer.



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Safety:

This 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 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.

For technical service & further information and assistance:

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Disclaimer: The data given above are for the guidelines purpose 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 warrantee what so ever, after processing.
