



# SHAKUN POLYMERS LIMITED

## SEMI-CONDUCTING SHIELDING COMPOUND



### SP-PESC-11 (INR)

#### **Description**

SP-PESC-11 (INR) is a Semi Conducting Compound having excellent heat deformation resistant characteristics and specially designed for use as a thermoplastic conductor shield. Further the material has superior thermal stress crack resistance, toughness are the desired properties. It is also easy to process and has low volume resistivity.

#### **Specification**

SP-PESC-11 (INR) meets the requirement of:

- ICEA S-66-524/NEMA WC7
- BS 6622
- IEC 60502
- IEC 60840

#### **Application**

Semiconducting SP-PESC-11 (INR) has been designed to meet the conductivity and bondability requirements of conductor shield for medium voltage cables.

Cables manufactured with SP-PESC-11 (INR) conductor and insulation shields are rated for 90 °C continuous service and 130 °C overload temperature.

#### **Properties**

<i>Properties</i>	<i>Test Method</i>	<i>Unit</i>	<i>Typical Value</i>
Melt Flow Index, 190 °C, 21.6 Kg.	ASTM D 1238	g/10 min.	28
Density at 27 °C	ASTM D 1505	g/cm <sup>3</sup>	1.08
Tensile Strength (25mm/min)	ASTM D 638	MPa	15
Elongation (25mm/min)	ASTM D 638	%	300
Change of Tensile Properties After ageing 168 hrs. at 121 °C	ASTM D 638	%	<20
Shore D Hardness	ASTM D 2240	--	49
DC Volume Resistivity - at 23 °C - at 90 °C	ASTM D 257	ohm-cm ohm-cm	<50 <100

\*Tensile Properties on 1 mm Extruded Tape

\*Data should not be used for specification work

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***Processing***

Semiconducting SP-PESC-11 (INR) has been formulated to be easily extrudable using conventional polyethylene extrusion lines. For optimum extrusion result with SP-PESC-11 (INR) use melt extrusion temperature in the range of 140 - 180 °C. Specific processing condition can be determined only by trials on individual equipment.

Semiconducting SP-PESC-11 (INR) 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.

***Shipment***

SP-PESC-11 (INR) is available in the form of free flowing pellets and supplied in bags of moisture resistant material with a net content of 25 Kgs.

This information is to the best of our knowledge, accurate but all recommendations or suggestions are made without guarantee since the conditions of use are beyond our control. The typical values given do not constitute specification for the product but represent typical analytical values.

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