



High Voltage Supersmooth Semiconductor Compound

- **Description**

ZARLNK™ SC0502 HV is a crosslinkable black Polyolefin compound, specially designed for semiconductive conductor screen and bonded insulation screen of power cables.

- **Applications**

ZARLNK™ SC0502 HV is intended for semiconductive screen of XLPE High voltage (HV) AC cables with rated voltages up to 150 kV ($U_m = 170$ kV). It can be used as conductor and insulation screen for bonded cable constructions and as conductor screen for strippable cable constructions.

The values are voltages between phases as defined in IEC 60183.

- **Specifications**

ZARLNK™ SC0502 HV is expected to meet the applicable requirements included in the below mentioned standards provided it is processed using sound material handling, extrusion and crosslinking practices as well as appropriate testing procedures. This applies up to the maximum recommended voltage level indicated in "Applications" section above since some standards cover wider voltage ranges.

IEC 60840 , 60502-2
AEIC CS8
ANSI/ICEA S-108-720
ANSI/ICEA S-93-639
ANSI/ICEA S-94-649
ANSI/ICEA S-97-682
DIN VDE 0276-620
DIN VDE 0276-632
Cenelec HD 620 S2 (Part 1)
Cenelec HD 632 S1
NF C33-226
UL 1072

- **Special Features**

ZARLNK™ SC0502 HV is a ready-to-use semiconductive compound. It offers excellent thermal stability which provides robust cable extrusion and crosslinking at high surface temperature, allowing for high line speed.

The excellent distribution of carbon black and additives in ZARLNK™ SC0502 HV results in a smooth semiconductive screen.



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In tables where two figures are given in a cell , first figure is temperature in setup stage with low speed and second is in production stage and full speed.

Inner Semiconductor Extruder							
Screw	Zone 1	Zone 2	Zone 3	Zone 4	Clamp	Connection 1	Connection 2
90	106 - 111	108 - 113	112- 115	115- 117	120- 122	122 - 125	122- 125

Outer Semiconductor Extruder							
Screw	Zone 1	Zone 2	Zone 3	Zone 4	Clamp	Connection 1	Connection 2
95	115- 120	115- 120	117 - 122	117 - 122	122 - 125	122 -125	122 -125

- Please note that to get smoother surface on outer semiconductor layer , related extruder temperature are set +10°C more than inner semiconductor extruder.

For screen packs , cable maker can use best optimum number and size of screen packs as per best practice on line , however following recommendation can be followed:

For **Screen Packs** , cable maker shall use best optimum number and size of screen packs as per best practice on line , however following recommendation as minimum should be followed:

* Inner Semiconductor layer : 20/80/80

* Outer Semiconductor layer: 20/80/80

- **Packaging**

Package: Small Octabin (600 kg) or Big Octabins (1200 kg)
 Aluminum Bags 25kg (55 bags on Pallets , total 1375 kg)

- **Storage**

ZARLNK™ SC0502 has a shelf life of 18 months from production date if stored in unopened original packages, under dry and clean conditions at temperatures between 10 - 30 °C (50 - 85 °F).

Material shelf life is affected by the storage conditions and extreme conditions influence the general material quality and performance. An opened package should be used within two weeks or be sealed airtight for further storage. Before use, material shall be conditioned indoors (production room) to reach ambient temperature. It is also recommended to ensure proper stock rotation by First In – First Out principle.