Product Data sheet

15 Dec 2015 Rev 1

SEJI CHEMICAL CO,. LTD.

SJ-703

Crosslinkable Black Shielding Compound

Overview

SJ-703 is black colored low Density, crosslinkable polyethylene compound with 2.5% carbon black designed for outdoor cable insulation up to 33kV.

SJ-703 has excellent electrical and weather resistant properties for outdoor power cable insulation and offers excellent extrusion and curing characteristics.

Specifications

ICEA S 66-524

Properties

This TDS is typical data only and are not to be construed as specifications. Users should results their own test. Tests are conducted on compression molded slabs cured 15 minutes at 180℃.

Physical	**Value (English)**	**Value (SI)**	**Test Method**
Density	0.93 g/㎤	0.93 g/㎤	ASTM D 1505
Moisture Content	300 ppm	500 ppm	ASTM D 6869
Melt Flow Rate[125°C(257°F)/10.0 kg]	4.30 g/10min	4.30 g/10min	ASTM D 1238
Brittleness temperature	<-70 °C	<-70 °C	ASTM D 746

Mechanical	**Value (English)**	**Value (SI)**	**Test Method**
Ultimate Tensile Strength	2901 psi	20.0 Mpa	ASTM D 638
Elongation at Break	500 %	500 %	ASTM D 638
Retention of Tensile Strength After Ageing - 135°C[275°F], 168hrs	90 %	90 %	IEC 60811-401
Retention of Elongation After Ageing - 135°C[275°F], 168hrs	90 %	90 %	IEC 60811-401

Electrical	**Value (English)**	**Value (SI)**	**Test Method**
Dielectric Constant	2.4 1MHz	2.4 1MHz	ASTM D 150
Dissipation Factor	0.0005 1MHz	0.0005 1MHz	ASTM D 150
Dielectric Strength	20 kV/mm	20 kV/mm	ASTM D 149
Volume Resistivity at 23℃[73.4°F]	$1.0x10^{16}$ Ωcm	$1.0x10^{16}$ Ωcm	ASTM D 257

Processing

SJ-703 provides excellent surface finish and outstanding output rates over a broad range of extrusion conditions.
SJ-703 requires melt stock temperatures in the range of 110℃ to 120℃ for best results.
Lower melt temperatures may result in unmelted extrudate and higher melt temperatures may result in extrudate scorch and It can even trigger die-drools.
The curing configuration : the maximum cable surface temperature in the curing zone should be maintained below 400ºC. If the surface temperature of the cable in the curing zone is over 400ºC, it may cause cracks in the cable, so careful temperature control is required.
Dehumidified hopper drying at 60~70℃ for up to 4 hours prior to extrusion could help remove moisture. Specific processing conditions depend on equipment and cable dimensions.
Optimum conditions by conventional practices should be established.

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Packing & Storage

Packed in 600kg polybag lined carton box.
Recommended maximum storage period is 12months unopened and in original packaging after the manufacture.

Stored at room temperatures 86 ℉ 30 ℃
The shelf life of this product is 1 year from the date of manufacture.

Safety

Please contact Seji Chemical for Material Safety Data Sheet.

Disclaimer

Information contained in this data sheet is up-to-date and correct as at the date of issue.
Seji chemical Co., Ltd. cannot control or anticipate the conditions under which this product may be used, each user should review the information in specific context of the planned use.
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