

# Product Data sheet

10 Feb 2020 Rev 3



SEJI CHEMICAL CO., LTD.

## SJ-201TR

### Crosslinkable Semiconductive Shielding Compound

#### Overview

SJ-201TR is a outstanding crosslinkable semiconductive polyethylene copolymer compound for conductor shielding of medium voltage XLPE insulated power cable.(TR-CNCV/W, TR-CNCE/W).

SJ-201TR is compatible with copper and aluminum conductors. SJ-201TR provides a super-smooth surface yielding virtually perfect interface between the extruded shield and insulation.

Significantly improved cable performance can be expected.

SJ-201TR has stable volume resistivity characteristics at elevated temperatures and excellent tree retardant properties.

#### Specifications

ICEA S-93-639, ICEA S-94-649  
IEC 60502-2  
AIEC CS8

#### 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°C.

##### Physical

|                                      | Value (English)        | Value (SI)             | Test Method |
|--------------------------------------|------------------------|------------------------|-------------|
| Density                              | 1.13 g/cm <sup>3</sup> | 1.13 g/cm <sup>3</sup> | ASTM D 1505 |
| Moisture Content                     | 300 ppm                | 300 ppm                | ASTM D 6869 |
| Melt Flow Rate[125°C(257°F)/10.0 kg] | 1.60 g/10min           | 1.60 g/10min           | ASTM D 1238 |
| Brittleness temperature              | <-40 °C                | <-40 °C                | ASTM D 746  |

##### Mechanical

|                                                                   | Value (English) | Value (SI) | Test Method   |
|-------------------------------------------------------------------|-----------------|------------|---------------|
| Ultimate Tensile Strength                                         | 2973 psi        | 20.5 Mpa   | ASTM D 638    |
| Elongation at Break                                               | 200 %           | 200 %      | 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 |
|--------------------|-----------------|------------|-------------|
| Volume Resistivity |                 |            | ASTM D 991  |
| at 23°C[73.4°F]    | 500 Ωcm         | 500 Ωcm    |             |
| at 90°C[194°F]     | 1,000 Ωcm       | 1,000 Ωcm  |             |
| at 135°C[275°F]    | 2,000 Ωcm       | 3,000 Ωcm  |             |

#### Processing

SJ-201TR provides excellent surface finish and outstanding output rates over a broad range of extrusion conditions.

SJ-201TR requires melt stock temperatures in the range of 120°C to 135°C for best results.

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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 200°C. If the surface temperature of the cable in the curing zone is over 200°C, it may cause cracks in the cable, so careful temperature control is required. Dehumidified hopper drying at 60~70°C 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.

### 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 °F

30 °C

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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