

Easy Strippable Insulation Shield

Density 1.16



Description

PRAMKOR 3007ES-TR is a specially formulated crosslinkable semi-conductive polyethylene copolymer compound for easy strippable insulation shielding of medium voltage XLPE insulated power cable.

PRAMKOR 3007ES-TR is suitable for both tandem and triple common head extrusion processes in steam or dry continuous curing system.

PRAMKOR 3007ES-TR has excellent stripping properties of lower and consistent stripping force over a wide temperature range without tearing, leaving a clean insulation surface.

Especially, PRAMKOR 3007ES-TR has excellent tree retardant properties.

Characteristics

- Excellent Surface Smoothness
- Excellent Electrical Properties
- Excellent Physical and Thermal Properties
- Long-run Extrusion without Scorch
- Excellent Strippability
- Excellent Tree Retardant

Specifications

Cables with insulation shielding of **PRAMKOR 3007ES-TR**, prepared applying sound commercial manufacturing and test procedure, meet the following industrial cable specifications.

- AEIC CS 8-00
- ICEA S-93-639/NEMA WC 74
- IEC 60502
- UL 1072

Electrical Properties

| Property | Test Method | Unit | Value | |
|-----------------------------------------------------------------------------------------|-------------|---------------|---------|--|
| DC Volume Resistivity | ASTM D 991 | | | |
| at 23 ℃ | | Ω · cm | < 100 | |
| at $90^{\circ}\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$ | | Ω · cm | < 1,000 | |



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Physical Properties

| Property | Test Method | Unit | Value |
|-------------------------------------------------|--------------------|---------------|----------------|
| Density at 23 ℃ | ASTM D 1505 | g / cm³ | 1.16 |
| Ultimate Tensile Strength | ASTM D 638 | N/mm^2 | 15.0 |
| Elongation at Break | ASTM D 638 | % | 300 |
| Air Oven Aging, 121 $^{\circ}$ C $	imes$ 168hrs | ASTM D 638 | | |
| Retention of Tensile Strength | | % | > 90 |
| Retention of Elongation | | % | > 90 |
| Brittleness Temperature | ASTM D 746 | ${\mathbb C}$ | < -50 |
| Moisture Content | Karl Fischer | ppm | < 500 |
| Metal Ion Contents | ICP | ppm | < 1,000 |
| Stripping Force at Cable | KWM | kg/13 mm | $3.5 \sim 7.0$ |

Tests are conducted on compression molded slabs cured 15 minutes at 180° C. Stripping Force at Cable values are typical for dry cure at room temperature. Values will vary with cable size, insulation type, type of cure, temperature, speed of test, etc.

(3) Data and/or informations are for guidance only; should not be used for specification work.

Processing Techniques

PRAMKOR 3007ES-TR provides excellent surface finish and outstanding output rates over a broad range of extrusion conditions.

PRAMKOR 3007ES-TR requires melt stock temperatures in the range of 80℃ to $120\,^{\circ}$ C for best results.

Hopper drying is not recommended for PRAMKOR 3007ES-TR to avoid fusion at hopper feed section. But when necessary, drying should be done it should be dried at max. 40° C with dehumidified air under agitation.

Specific processing conditions depend on equipments and cable dimensions. Optimum conditions by conventional practices should be established.

Extrusion Conditions

| Extrusion Zone | C1 | C2 | C3 | C4 | C5 | Neck | Head |
|----------------|----|----|-----|-----|-----|------|------|
| Temperature(℃) | 65 | 95 | 100 | 105 | 105 | 110 | 108 |

^{*} Screw Cooling Temperature:60°C

Packing

PRAMKOR 3007ES-TR is in pellet form and packed in 600kg polybag lined carton box ensuring to prevent the uptake of moisture and contaminants. Custom packaging is available.



