



Technical Data

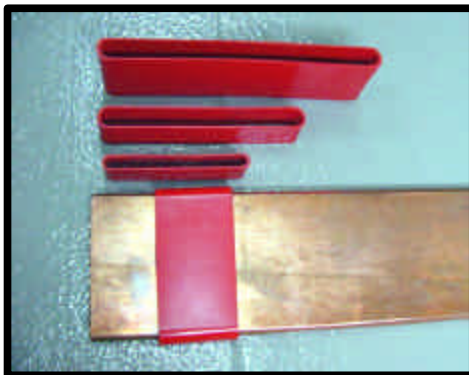
Electrical Insulation Sleeves

DESCRIPTION

S3C's Electrical Insulation Sleeves are made from high-grade engineering materials specifically designed for extrusion mouldings. The "Noryl" Material characteristics include excellent dimensional stability, low mould shrinkage, low water absorption and very low creep behaviour under elevated temperatures. The high heat resistance, halogen-free flame retardancy and electrical properties of the materials make these products ideal for low and medium voltage applications.

APPLICATIONS

Electrical Insulation Sleeves are extensively used in switchgears, switchboards and bus ducts. Initially, these sleeves are manufactured and made available in Red colour. However, a wide variety of colours can be applied over the product using commercial organic paints and conventional application processes. Special colours and sizes can be manufactured but would require certain minimum volume. These products can be produced up to 12 feet in length or as per requirement.



PRODUCT SPECIFICATIONS

Physical

Generic Type

**Flame Retardant, Extrusion Grade,
Engineering Thermoplastic**

Density

1.07 g/cm³, ISO 1183

Water Absorption (23°C / sat.) 1L

0.25%, DIN 53495

Moisture Absorption (23°C / 50%RH) 1L

0.06%, DIN 53495

Mould Shrinkage

0.5 – 0.7%, ASTM D955

Electrical

Dielectric Strength, in oil, 0.8 mm

33 kV/mm, IEC 243

Dielectric Strength, in oil, 1.6 mm

26 kV/mm, IEC 243

Dielectric Strength, in oil, 3.2 mm

16 kV/mm, IEC 243

Volume Resistivity

1E15 Ohm-m, IEC 93

Surface Resistivity

>1E15 Ohm-m, IEC 93

Relative Permittivity, 50 Hz

2.8, IEC 250

Relative Permittivity, 1 MHz

2.7, IEC 250

Dissipation Factor, 50 Hz

0.0100, IEC 250

Dissipation Factor, 1 MHz

0.0030, IEC 250

Flammability

94V-1 Flame Class Rating

1.50 mm, UL 94

94V-0 Flame Class Rating

2.50 mm, UL 94

Oxygen Index

31%, ISO 4589

Gloss Wire Test, 960°C, Passes at

3.2 mm, IEC 695-2-1

Thermal

Thermal Conductivity

0.23 W/m °C, DIN 52612

**Coeff. Of Lin. Thermal Expansion
(23 – 80 °C)**

8E-5 1/°C, DIN 53752

Thermal Index, Mech. Property

With Impact

105 °C, UL 746B

Without Impact

110 °C, UL 746B

Vicat B/120

145 °C, ISO 306

Ball Pressure Test, approx. max. 135 °C, IEC 335-1

HDT/Be, 0.45 MPa edgew. 145 °C, ISO 75/Be
120*10*4/s=100 mm

Impact

Izod Impact, notched 80*10*4
+ 23 °C
- 30 °C

14 kJ/m², ISO 180/1A
5 kJ/m², ISO 180/1A

Mechanical

Tensile S Tensile Stress at break, 50 mm/min 65 MPa, ISO 527
tress at yield, 50 mm/min 55 MPa, ISO 527

Tensile Strain at yield, 50 mm/min 4.0 %, ISO 527
Tensile Strain at break, 50 mm/min 8.0 %, ISO 527

Tensile Modulus, 1 mm/min 2450 MPa, ISO 527

Flexural Strength at yield, 2 mm/min 88 MPa, ISO 178
Flexural Modulus, 2 mm/min 2150 MPa, ISO 178

OTHER PRODUCTS

S3C can also apply a vast range of other coating materials including, polyethylene, nylon, PVC, PTFE (fluorocarbons), EVA as well as arrange of acrylic, PVDF architectural finishes and Super Durable Industrial Polyesters.

For more information, please visit our website at <http://www.s3c.net> or e-mail us at sales@s3c.net. You can write or contact us too at:



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