

# Item Description

## Item ID

PE19986

PE-LD extrusion compound  
Semiconductive

Typical end product  
Speciality cables

Applications  
Cable sheat

PRE-ELEC® PE 19986 is a conductive thermoplastic compound based on PE-LD. Conductivity is achieved by using special conductive carbon black. In addition to a low electrical resistivity it has an excellent balance of mechanical properties and is easy to process on extrusion process.

Special properties	Unit	Value	Method
Volume resistivity(*)	$\Omega \cdot \text{cm}$	20	PRE021
Surface resistance(*)	$\Omega$	<1E3	IEC 61340-2-3

General properties	Unit	Value	Method
Density	$\text{g/cm}^3$	1,04	ISO 1183
Melt flow rate at 190°C	$\text{g/10 min}$		ISO 1133
5.0 kg		1	
10.0 kg		4	
21.6 kg		20	

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	13	ISO 527
Yield strength	MPa	12	ISO 527
Tensile strain at break	%	190	ISO 527
Tensile strain at yield	%	38	ISO 527
Tensile modulus	MPa	460	ISO 527

MFR is measured from granulates.

Test specimen: injection moulded rod; ISO 527 TYPE 1A; Thickness: 10 mm, width: 4 mm

(\* extruded tape; ISO 527-2 Type 1B, thickness 400 - 800  $\mu\text{m}$ )

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## Processing instructions

	Unit	Processing range
Extrusion		
Cylinder temperature profile	°C	160 - 200
Die temperature profile	°C	180 - 200
Tool/Roll temperature	°C	70 - 50

## Notes

Drying of the product is recommended for 2-3 hours at 60-80°C prior to use.

These parameters are for guidance only. The process parameters should always be optimized for the used equipment. The instructions of the equipment manufacturer should be followed. Caution should be taken when handling molten material as it is extremely hot and may cause severe burns.

## Storage

Product-specific details are mentioned in the notes above. The general minimum shelf life for Premix's product is 3 years with the following conditions: 1) original package is unopened, 2) the storage area and conditions provide protection from direct sunlight and significant changes in storage temperature, 3) the product is pre-dried accordingly before use.

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