

# Item Description

## Item ID

PRE-ELEC<sup>®</sup> PE 19400  
PE19400

POE concentrate  
Electrically conductive  
Fatigue resistance

Typical end product  
Flexible applications

Applications  
Flextubes  
Profiles

PRE-ELEC<sup>®</sup> PE 19400 is electrically conductive thermoplastic concentrate based on polyolefin elastomers. Conductivity is achieved by using special conductive carbon black. It contains a high load of carbon black, and it can be diluted with polyethylene or polyolefin elastomers. The actual amount should always be tested as it also depends on the processing conditions. This grade is well suited for applications that require high flexibility, toughness and long term cyclic dynamic load conditions.

Special properties	Unit	Value	Method
Volume resistivity - See percolation curve	Ω.cm	5	PRE021
Surface resistance(*)	Ω	<1E3	IEC 61340-2-3

General properties	Unit	Value	Method
Density	g/cm3	1,1	ISO 1183
Vicat, Rate A	°C	98	ISO 306/A50
Vicat, Rate B	°C	72	ISO 306/B50
HDT, 0.45 MPa	°C	55	ISO 75/Bf
HDT, 1.80 MPa	°C	42	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength(*)	MPa	25	ISO 527
Tensile strain at break(*)	%	>350	ISO 527
Tensile modulus	MPa	340	ISO 527
Hardness, Shore A	-	95	ISO 868
Hardness, Shore D	-	55	ISO 868

Tensile test speed: 50 mm/min, Sample test length 50mm

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

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### Processing instructions

	Unit	Processing range
Extrusion		
Cylinder temperature profile	°C	210 - 230
Die temperature profile	°C	230 - 230
Tool/Roll temperature	°C	90 - 60

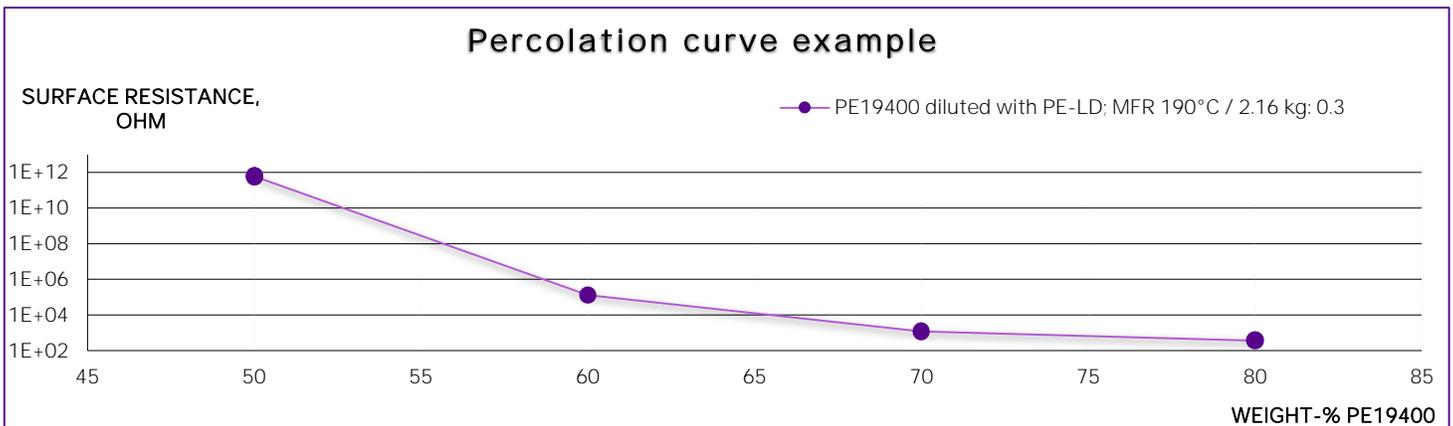
### Notes

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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