

# Item Description

PRE-ELEC<sup>®</sup> PP 19285

## Item ID

PP19285

Features	Electrically conductive USP Plastics Class VI Heat stabilized	Applications	Pipette tip Robotic tip Technical parts
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PRE-ELEC<sup>®</sup> PP 19285 is a conductive thermoplastic compound based on medical grade polypropylene. Conductivity is achieved by using special conductive carbon black. The product features good statistical performance in terms of constant product properties with minimized amount of residual impurities.

The product is designed for injection moulding of precise thin-walled articles with high quality requirements, such as pipette tips used in automated liquid handling robots and testing devices with capacitive liquid level detection.

Special properties	Unit	Value	Method
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Volume resistivity	Ω.cm	< 20	PRE021
Surface resistance	Ω	< 10 <sup>3</sup>	IEC 61340-2-3

General properties	Unit	Value	Method
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Specific gravity	g/cm <sup>3</sup>	1,00	ISO 1183
Melt flow rate at 230°C	g/10 min		ISO 1133
2.16 kg		16	
Mould shrinkage	%	1.2 - 1.5	ISO 294-4
Vicat, Rate A	°C	154	ISO 306/A50
Vicat, Rate B	°C	90	ISO 306/B50
HDT, 0.45 MPa	°C	97	ISO 75/Bf
HDT, 1.80 MPa	°C	57	ISO 75/af

Mechanical properties	Unit	Value	Method
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Tensile strength	MPa	26	ISO 527
Tensile strain at break	%	4	ISO 527
Flexural modulus	MPa	1500	ISO 178
Impact strength, Charpy	kJ/m <sup>2</sup>		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		15	
Unnotched, -20°C		NB	
Notched, -20°C		6	
Hardness, Shore A	-	>90	ISO 868
Hardness, Shore D	-	68	ISO 868

MFR is measured from granulates

Test specimen: injection moulded rod; Thickness: 10 mm, width: 4 mm

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### Remarks

Drying of the product is recommended for 2-4 hours at 90°C prior to use.

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.

Contact Premix for further processing instructions.

### 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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