

# PRE-ELEC<sup>®</sup> PP 1381

PP injection moulding compound  
Electrically conductive

Applications: Technical parts  
Pallets

PRE-ELEC<sup>®</sup> PP 1381 is a conductive thermoplastic concentrate based on polypropylene. Conductivity is achieved by using special conductive carbon black. It contains a high load of carbon black and it can be diluted with virgin or recycled PP. The actual amount should always be tested as it also depends on the processing conditions. This product offers a cost-effective solution for big injection moulding articles.

Special properties	Unit	Value	Method
Volume resistivity	Ω.cm	3	PRE021
Surface resistance	Ω	6E+02	IEC 61340-2-3

General properties	Unit	Value	Method
Specific gravity	g/cm <sup>3</sup>	1.06	ISO 1183
Melt flow rate at 230°C	g/10 min		ISO 1133
5.0 kg		1.5	
Mould shrinkage	%	1.2 - 1.7	ISO 294-4
Vicat, Rate A	°C	150	ISO 306/A50
Vicat, Rate B	°C	80	ISO 306/B50
HDT, 0.45 MPa	°C	104	ISO 75/Bf
HDT, 1.80 MPa	°C	58	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	26	ISO 527
Tensile strain at break	%	5	ISO 527
Flexural modulus	MPa	1900	ISO 178
Impact strength, Charpy	kJ/m <sup>2</sup>		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		8	
Unnotched, -20°C		61	
Notched, -20°C		3	
Hardness, Shore A	-	> 90	ISO 868
Hardness, Shore D	-	72	ISO 868

MFR is measured from granulates

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

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This product is REACH and RoHS compliant

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## Processing instructions

	Unit	Processing range
Injection moulding		
Material temperature	°C	200 - 260
Mould temperature	°C	60 - 80
Injection pressure	Bar	600 - 800
Injection speed		moderate

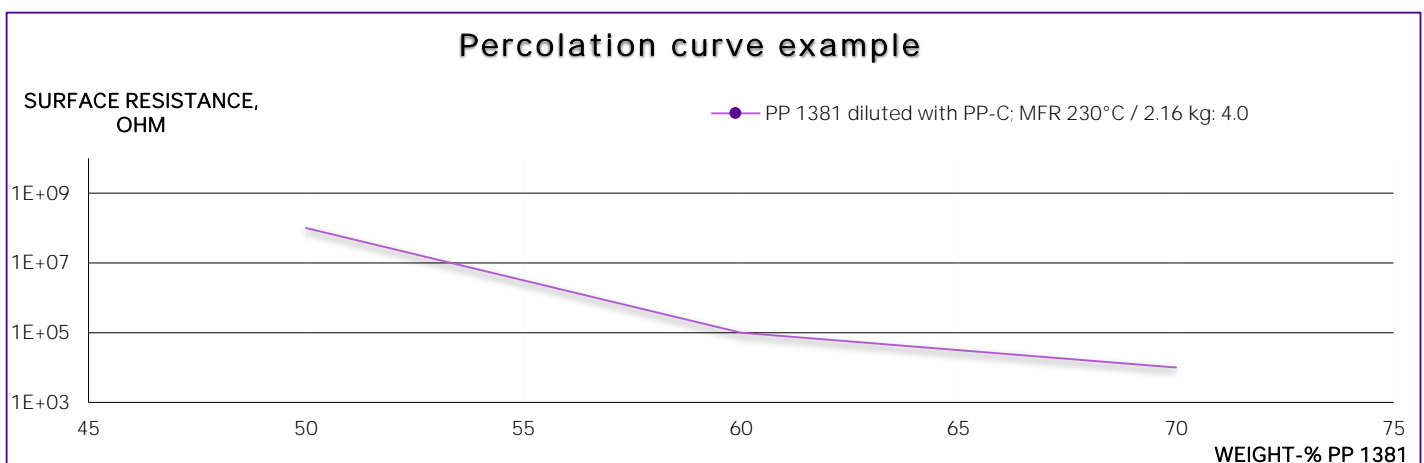
## Notes

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

Processing conditions as with filled PP. 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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