

# PRE-ELEC<sup>®</sup> PA 1411

PA6 concentrate  
Electrically conductive

Applications: Technical parts  
Housings, Enclosures

PRE-ELEC<sup>®</sup> PA 1411 is a conductive thermoplastic compound based on polyamide 6. Conductivity is achieved by using special conductive carbon black. It contains a high load of carbon black and it is recommended to be diluted with PA6. The actual amount should always be tested as it also depends on the processing conditions.

The values with the exception of MFR are measured from dilution: 30% PA6

Special properties	Unit	Value	Method
Volume resistivity	Ω.cm	35	PRE021
Surface resistance	Ω	9E+02	IEC 61340-2-3

General properties	Unit	Value	Method
Specific gravity	g/cm <sup>3</sup>	1.25	ISO 1183
Mould shrinkage	%	1.2	ISO 294-4
Vicat, Rate A	°C	220.0	ISO 306/A50
Vicat, Rate B	°C	200.0	ISO 306/B50
HDT, 0.45 MPa	°C	180	ISO 75/Bf
HDT, 1.80 MPa	°C	72	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	70	ISO 527
Tensile strain at break	%	5	ISO 527
Flexural modulus	MPa	3200	ISO 178
Impact strength, Charpy	kJ/m <sup>2</sup>		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		8	
Unnotched, -20°C		40	
Notched, -20°C		8	
Hardness, Shore D	-	84	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

Visit Premix Data Center for more detailed information of our products at [www.premixgroup.com/data-center-main](http://www.premixgroup.com/data-center-main)

## Processing instructions

	Unit	Processing range	
Injection moulding			
Material temperature	°C	240	- 300
Mould temperature	°C	60	- 80
Injection pressure	Bar	600	- 800
Injection speed			moderate

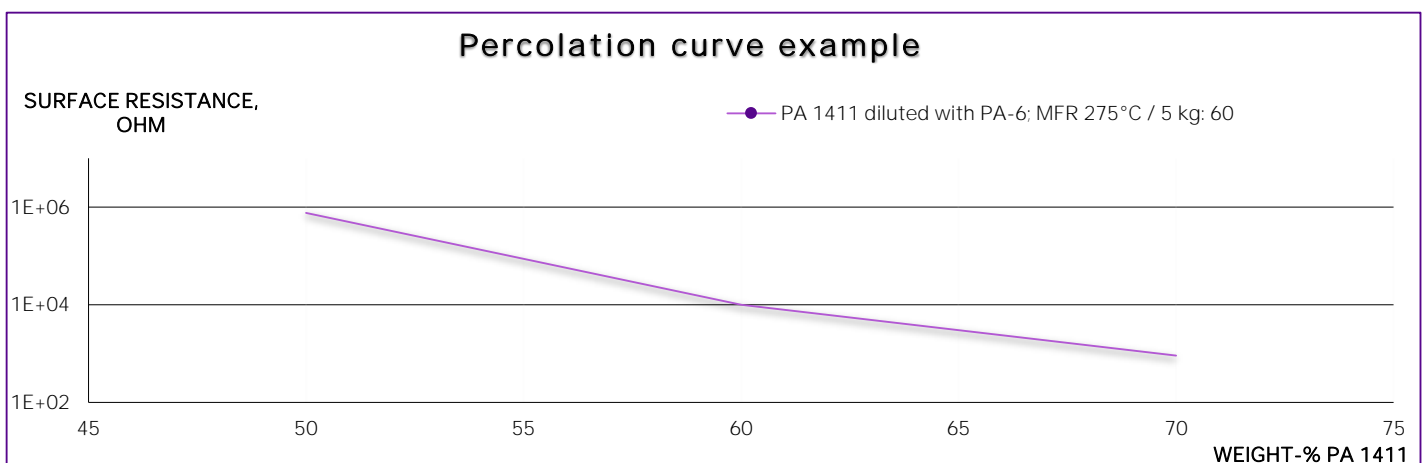
## Notes

Drying of the product is recommended for 2-4 hours at 80°C prior to use.

Processing conditions as with filled PA6. 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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