Technical Datasheet

PRE-ELEC® PP 18999

Item Description

Item ID

PP18999

PP concentrate
Electrically conductive

Typical end product
Applications

Boxes, pallets
Technical parts

PRE-ELEC® PP 18999 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 amounts 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	1,2	PRE021
Surface resistance	Ω	4E+02	IEC 61340-2-3

General properties	Unit	Value	Method
Specific gravity	g/cm3	1,12	ISO 1183
Melt flow rate at 230°C	g/10 min		ISO 1133
5.0 kg		1,2	
Mould shrinkage	%	1,8	ISO 294-4
Vicat, Rate A	°C	152	ISO 306/A50
Vicat, Rate B	°C	88	ISO 306/B50
HDT, 0.45 MPa	°C	88	ISO 75/Bf
HDT, 1.80 MPa	°C	57	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	20	ISO 527
Tensile strain at break	%	3	ISO 527
Flexural modulus	MPa	1400	ISO 178
Impact strength, Charpy	kJ/m2		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		11	
Unnotched, -20°C		40	
Notched, -20°C		2	
Hardness, Shore A	-	95	ISO 868
Hardness, Shore D	-	71	ISO 868

MFR is measured from granulates
Test specimen: injection moulded rod; Thickness: 10 mm, width: 4 mm

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www.premixgroup.com/data-center-main

Processing instructions

Injection moulding

	Unit	Processing range		
Material temperature	°C	220	-	260
Mould temperature	°C	20	-	60
Injection pressure	Bar	400	-	800
Injection speed				Fast

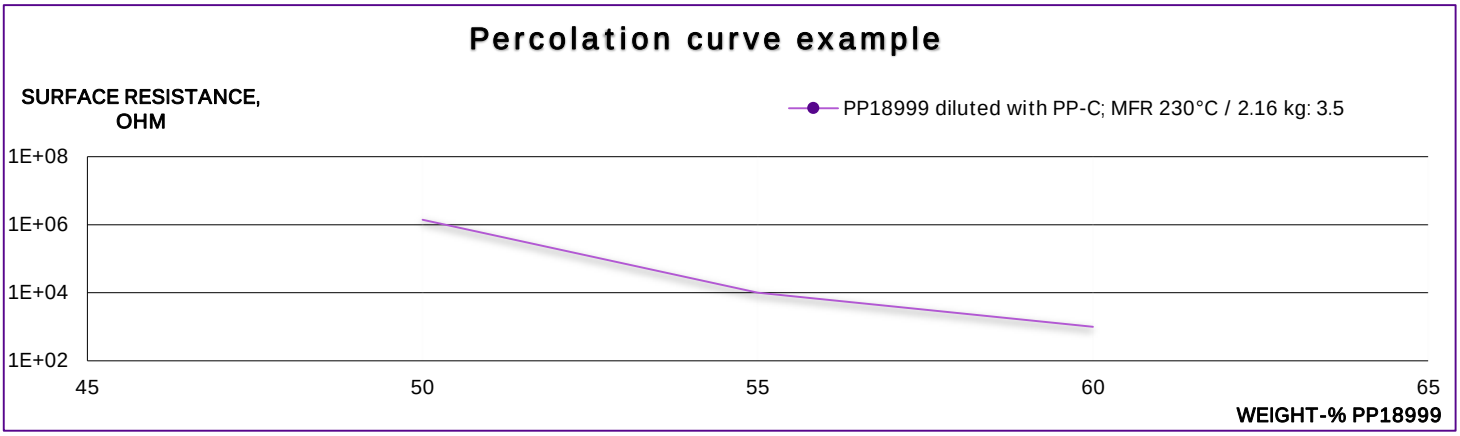
Notes

Drying of the product is recommended for 2-4 hours at 90°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.



Contact our Sales and Customer Service teams for more information
www.premixgroup.com/contact
precise@premixgroup.com