

PRE-ELEC[®] PP 1384

PP extrusion compound
Electrically conductive

Applications: Co-extruded tape
FIBC (Type C)

PRE-ELEC[®] PP 1384 is a conductive thermoplastic compound based on polypropylene. Conductivity is achieved by using special conductive carbon black. In addition to a low electrical resistivity, it has excellent mechanical properties and is easy to extrude. It is recommended to be used in co-extrusion applications.

Special properties	Unit	Value	Method
Volume resistivity(*)	Ω.cm	4	PRE021
Surface resistance (*)	Ω	5E+02	IEC 61340-2-3

General properties	Unit	Value	Method
Specific gravity	g/cm ³	1.06	ISO 1183
Melt flow rate at 230°C	g/10 min		ISO 1133
2.16 kg		1.0	
5.0 kg		16.0	
Mould shrinkage	%	1.2 - 1.7	ISO 294-4
Vicat, Rate A	°C	154	ISO 306/A50
HDT, 0.45 MPa	°C	109	ISO 75/Bf
HDT, 1.80 MPa	°C	63	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength (*)	MPa	30	ISO 527
Tensile strain at break (*)	%	4	ISO 527
Flexural modulus	MPa	2000	ISO 178
Impact strength, Charpy	kJ/m ²		ISO 179
Unnotched, +23°C		15	
Notched, +23°C		4	
Unnotched, -20°C		5	
Notched, -20°C		2	
Hardness, Shore A	-	> 90	ISO 868
Hardness, Shore D	-	73	ISO 868

MFR is measured from granulates

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

*) extruded tape; Thickness 600-800 µm

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This product is REACH and RoHS compliant

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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 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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