

PRE-ELEC[®] PP 1353

PP concentrate
Electrically conductive

Applications: Raffia
Monofilament

PRE-ELEC[®] PP 1353 is a conductive thermoplastic concentrate based on PP-H. Conductivity is achieved by using special conductive carbon black. The product can be diluted up to 65 wt-% with propylene homopolymer.

Used dilution: 50% PP-H; MFR 230°C / 2.16 kg: 35

Electrical properties	Unit	Typical value	Test method
Surface resistance	Ω	$< 10^3$	IEC 61340-2-3
Volume resistivity	$\Omega.cm$	< 1000	PRE021
General properties	Unit	Typical value	Test method
Specific gravity	-	1.11	ISO 1183
Mould shrinkage	%	1.2-1.4	ISO 294-4
Melt flow index (* 230 °C / 2.16 kg 230 °C / 10.0 kg)	g/10 min	0.3 9	ISO 1133
Mechanical properties	Unit	Typical value	Test method
Tensile strength (**)	MPa	28	ISO 527
Elongation at break (**)	%	450	ISO 527
Flexural modulus	MPa	1300	ISO 178
Impact strength, Charpy			ISO 179
Unnotched, +23 °C	kJ/m2	NB	
Notched, +23 °C	kJ/m2	8	
Unnotched, -20 °C	kJ/m2	45	
Notched, -20 °C	kJ/m2	3	
Hardness			ISO 868
Shore A	-	98	
Shore D	-	75	
Thermal properties	Unit	Typical value	Test method
Vicat, Rate A	°C	150	ISO 306/A50
Vicat, Rate B	°C	85	ISO 306/B50
HDT, 0.45 MPa	°C	78	ISO 75/Bf
HDT, 1.8 MPa	°C	54	ISO 75/Af

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

Extruded sheet; Thickness: 600-800 μ m

*) Measured from granulates

PRE-ELEC[®] TP 17500

We do not intentionally add or incorporate hazardous substances in our production. This product is REACH and RoHS compliant.

See Premix document center for more detailed information of our products and issues related to processing of conductive plastics

Processing instructions

	Unit	Value range
Extrusion		
Cylinder temperature profile	°C	200 to 220
Die temperature profile	°C	210 to 220
Tool/Roll temperature	°C	90 to 60

Notes

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.

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