

PRE-ELEC[®] PE 1296

PE Injection moulding compound
 Low odour
 Easy to process

Applications: Blow moulding of canisters, containers
 Co-extruded pipes and sheets
 Mono-extruded pipes and sheets

PRE-ELEC[®] TP 17500 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 an excellent balance of mechanical properties and is easy to injection mould. Furthermore, the product has very low odour.

Used dilution: 40% PE-HD; MFR 190°C / 21.6 kg: 9

Electrical properties	Unit	Typical value	Test method
Surface resistance	Ω	< 10 ⁵	IEC 61340-2-3
Volume resistivity	$\Omega.cm$	< 1000	PRE021

General properties	Unit	Typical value	Test method
Specific gravity	-	1.12	ISO 1183
Mould shrinkage	%	2.5-3.5	ISO 294-4
Melt flow index (* 190 °C / 21.6 kg)	g/10 min	0.6	ISO 1133

Mechanical properties	Unit	Typical value	Test method
Tensile strength	MPa	24	ISO 527
Elongation at break	%	40	ISO 527
Flexural modulus	MPa	1200	ISO 178
Impact strength, Charpy			ISO 179
Unnotched, +23 °C	kJ/m2	NB	
Notched, +23 °C	kJ/m2	65	
Unnotched, -20 °C	kJ/m2	NB	
Notched, -20 °C	kJ/m2	60	
Hardness			ISO 868
Shore A	-	> 90	
Shore D	-	65	

Thermal properties	Unit	Typical value	Test method
Vicat, Rate A	°C	129	ISO 306/A50
Vicat, Rate B	°C	73	ISO 306/B50
HDT, 0.45 MPa	°C	77	ISO 75/Bf
HDT, 1.8 MPa	°C	43	ISO 75/ Af

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

*) Measured from granulates

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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 230
Die temperature profile	°C	200 to 220
Tool/Roll temperature	°C	70 to 50
Injection moulding		
Material temperature	°C	210 - 250
Mould temperature	°C	40 - 80
Injection pressure	Bar	750 - 1200
Injection speed		moderate

Notes

Processing conditions as with filled PE. 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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