

Item Description

Item ID

PA17970

PA6 injection moulding compound
Electrically conductive
Glass fiber

Typical end product
Applications

Fenders
Technical parts
Electrostatic painting

PRE-ELEC® PA 17970 is an electrically conductive thermoplastic polyamide 6 compound with enhanced mechanical properties from glass fiber filling. The glass fiber content is 25 wt-%. The conductivity is achieved by using a special conductive carbon black. This grade can be painted using electrostatic painting method.

Special properties	Unit	Value	Method
Surface resistance	Ω	2E+04	IEC 61340-2-3

General properties	Unit	Value	Method
Specific gravity	g/cm ³	1,36	ISO 1183
Fiber content	wt-%	25,0	-
Melt flow rate at 275°C 10.0 kg	g/10 min	13	ISO 1133
Mould shrinkage	%	0,3	ISO 294-4
Vicat, Rate A	°C	220	ISO 306/A50
Vicat, Rate B	°C	205	ISO 306/B50
HDT, 0.45 MPa	°C	215	ISO 75/Bf
HDT, 1.80 MPa	°C	195	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	105	ISO 527
Tensile strain at break	%	5	ISO 527
Flexural modulus	MPa	6700	ISO 178
Impact strength, Charpy	kJ/m ²		ISO 179
Unnotched, +23°C		63	
Notched, +23°C		12	
Unnotched, -20°C		63	
Notched, -20°C		9	

MFR is measured from granulates

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

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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 80-90°C prior to use.

As with filled PA grades. 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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