

Item Description

Item ID

PRE-ELEC[®] PA 18672
PA18672

PA extrusion compound
Electrically conductive

Typical end product
Applications

Fibers
Filaments

PRE-ELEC[®] PA 18672 is a conductive thermoplastic compound based on polyamide 6. The conductivity is achieved by using a special carbon black. It has excellent combination of mechanical and electrical properties combined with use temperature range suited for demanding needs.

Special properties	Unit	Value	Method
Volume resistivity(*)	Ω.cm	2,5	PRE021
General properties	Unit	Value	Method
Specific gravity	g/cm ³	1,29	ISO 1183
Melt flow rate at 250°C	g/10 min		ISO 1133
5.0 kg		6,6	
10.0 kg		42	
HDT, 0.45 MPa	°C	176	ISO 75/Bf
HDT, 1.80 MPa	°C	87	ISO 75/Af
Mechanical properties	Unit	Value	Method
Tensile strength(*)	MPa	64	ISO 527
Tensile strain at break(*)	%	3	ISO 527
Flexural modulus	MPa	3700	ISO 178
Impact strength, Charpy	kJ/m ²		ISO 179
Unnotched, +23°C		22	
Unnotched, -20°C		2	
Hardness, Shore D	-	88	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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Processing instructions

	Unit	Processing range
Extrusion		
Cylinder temperature profile	°C	220 - 250
Die temperature profile	°C	230 - 250
Tool/Roll temperature	°C	90 - 60

Notes

Drying of the product is recommended for 2-3 hours at 80°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.

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