

Item Description

Item ID

PRE-ELEC[®] PC-ABS 1420
1420

PC-ABS extrusion compound
Electrically conductive

Typical end product
Applications

Sheets
Thermoformed trays

PRE-ELEC[®] PC-ABS 1420 is a conductive thermoplastic compound based on a PC-ABS blend. 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.

Special properties	Unit	Value	Method
Volume resistivity(*)	Ω.cm	150	PRE021
Surface resistance(*)	Ω	6E+03	IEC 61340-2-3
General properties	Unit	Value	Method
Specific gravity	g/cm ³	1,12	ISO 1183
Melt flow rate at 240°C	g/10 min		ISO 1133
21.6 kg		13	
Mould shrinkage	%	0.7 - 0.9	ISO 294-4
Vicat, Rate A	°C	138	ISO 306/A50
Vicat, Rate B	°C	118	ISO 306/B50
HDT, 0.45 MPa	°C	107	ISO 75/Bf
HDT, 1.80 MPa	°C	93	ISO 75/Af
Mechanical properties	Unit	Value	Method
Tensile strength(*)	MPa	37	ISO 527
Tensile strain at break(*)	%	20	ISO 527
Flexural modulus	MPa	2700	ISO 178
Impact strength, Charpy	kJ/m ²		ISO 179
Unnotched, +23°C		33	
Notched, +23°C		6	
Unnotched, -20°C		28	
Notched, -20°C		3	

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	280 - 300
Die temperature profile	°C	290 - 300
Tool/Roll temperature	°C	90 - 70

Notes

Drying of the product is recommended for 3-4 hours at 100°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. Overheated material can be cooled with e.g. water.

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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