

Item Description

Item ID

PRE-ELEC[®] ABS 1410
1410

ABS injection moulding compound
Electrically conductive

Typical end product
Technical parts

Applications

PRE-ELEC[®] ABS 1410 is a conductive thermoplastic compound based on ABS. 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 injection mold.

Special properties	Unit	Value	Method
Volume resistivity	Ω.cm	350	PRE021
Surface resistance	Ω	1E3-1E4	IEC 61340-2-3
Flammability	-	HB (1.5mm)	RD524

General properties	Unit	Value	Method
Density	g/cm ³	1.10	ISO 1183
Melt flow rate at 220°C	g/10 min		ISO 1133
10.0 kg		15	
Mould shrinkage	%	0.5 - 0.8	ISO 294-4
Vicat, Rate A	°C	104	ISO 306/A50
Vicat, Rate B	°C	91	ISO 306/B50
HDT, 0.45 MPa	°C	88	ISO 75/Bf
HDT, 1.80 MPa	°C	73	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength(*)	MPa	36	ISO 527
Tensile strain at break(*)	%	8	ISO 527
Flexural modulus	MPa	2000	ISO 178
Impact strength, Charpy	kJ/m ²		ISO 179
Unnotched, +23°C		33	
Notched, +23°C		5	
Unnotched, -20°C		21	
Notched, -20°C		2	
Hardness, Shore D	-	76	ISO 868

MFR is measured from granulates.

Test specimen: injection moulded rod; ISO 527 TYPE 1A; Thickness: 10 mm, width: 4 mm

(* extruded tape; ISO 527-2 Type 1B, thickness 400 - 800 µm)



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Processing instructions

Injection moulding

	Unit	Processing range		
Material temperature	°C	220	-	260
Mould temperature	°C	60	-	90
Injection pressure	Bar	750	-	1200
Injection speed				moderate

Notes

Drying of the product is recommended for 2-4 hours at 80-100°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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