

Item Description

Item ID

PRE-ELEC[®] ESD PP 18873

PP18873

PP injection moulding compound
Electrically conductive
Flame retardant

Typical end product
Applications

Technical parts

PRE-ELEC[®] ESD PP 18873 is a black electrically conductive polypropylene compound with flammability rating of V-0 at 3 mm specimen thickness according to UL94 categories. The flame retardancy has been achieved with non-halogenated flame retardant agents.

Special properties	Unit	Value	Method
Surface resistance(*)	Ω	7E+08	IEC 61340-2-3
Flammability	-	V0 (3mm)	RD524

General properties	Unit	Value	Method
Specific gravity	g/cm ³	1.04	ISO 1183
Melt flow rate at 230°C	g/10 min		ISO 1133
2.16 kg		11	
Mould shrinkage	%	1.1	ISO 294-4
Vicat, Rate A	°C	142	ISO 306/A50
Vicat, Rate B	°C	84	ISO 306/B50
HDT, 0.45 MPa	°C	118	ISO 75/Bf
HDT, 1.80 MPa	°C	73	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength(*)	MPa	18	ISO 527
Tensile strain at break(*)	%	60	ISO 527
Flexural modulus	MPa	1100	ISO 178
Impact strength, Charpy	kJ/m ²		ISO 179
Unnotched, +23°C		31	
Notched, +23°C		2	
Unnotched, -20°C		12	
Notched, -20°C		1.5	
Hardness, Shore A(*)	-	> 90	ISO 868
Hardness, Shore D(*)	-	64	ISO 868

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	190 - 230
Mould temperature	°C	30 - 70
Injection pressure	Bar	750 - 1200
Injection speed		moderate

Notes

Drying of the product is recommended for 2-4 hours at 90°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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