

# Item Description

## Item ID

**PRE-ELEC<sup>®</sup> PP 17147**  
**PP17147**

**PP injection moulding compound**  
**Very high electrical conductivity**  
**High HDT**

**Typical end product**  
**Applications**

**EMI Shielding**  
**Enclosures**

PRE-ELEC<sup>®</sup> PP 17147 is a proprietary formulation developed for applications requiring EMI-shielding properties. It is easy to injection mould and has excellent properties combined with low mould shrinkage and much higher HDT-values than typical polypropylenes. The material's color is black.

Special properties	Unit	Value	Method
Volume resistivity	Ω.cm	0.25	PRE021
Surface resistance	Ω	6E+02	IEC 61340-2-3
Flammability(*)	-	HB	RD524

General properties	Unit	Value	Method
Specific gravity	g/cm <sup>3</sup>	1.14	ISO 1183
Melt flow rate at 230°C	g/10 min		ISO 1133
10.0 kg		5.7	
Mould shrinkage	%	0.05 - 0.1	ISO 294-4
Vicat, Rate A	°C	152	ISO 306/A50
Vicat, Rate B	°C	97	ISO 306/B50
HDT, 0.45 MPa	°C	149	ISO 75/Bf
HDT, 1.80 MPa	°C	113	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	41	ISO 527
Tensile strain at break	%	1.4	ISO 527
Flexural modulus	MPa	10000	ISO 178
Impact strength, Charpy	kJ/m <sup>2</sup>		ISO 179
Unnotched, +23°C		8	
Notched, +23°C		5	
Unnotched, -20°C		8	
Notched, -20°C		4	
Hardness, Shore D	-	75	ISO 868

MFR is measured from granulates

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

\*) In-house testing

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### Processing instructions

	Unit	Processing range
<b>Injection moulding</b>		
Material temperature	°C	240 - 260
Mould temperature	°C	40 - 70
Injection pressure	Bar	600 - 1000
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.

### 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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