

# Item Description

## Item ID

**PRE-ELEC<sup>®</sup> TP 14815**  
**TP14815**

**PP extrusion compound**  
**Electrically conductive**  
**Flame retardant**

**Typical end product**  
**Pipes, Sheets**

**Applications**  
**Ventilation systems**  
**ATEX**

PRE-ELEC<sup>®</sup> TP 14815 is a carbon black filled 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
Volume resistivity	Ω.cm	100	PRE021
Surface resistance	Ω	1E3-1E4	IEC 61340-2-3
Flammability	-	V0 (3 mm)	RD524

General properties	Unit	Value	Method
Specific gravity	g/cm <sup>3</sup>	1.42	ISO 1183
Melt flow rate at 230°C	g/10 min		ISO 1133
10.0 kg		1.3	
Mould shrinkage	%	0.9 - 1.1	ISO 294-4
Vicat, Rate A	°C	130	ISO 306/A50
Vicat, Rate B	°C	64	ISO 306/B50
HDT, 0.45 MPa	°C	72	ISO 75/Bf
HDT, 1.80 MPa	°C	48	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength	MPa	15	ISO 527
Tensile strain at break	%	300	ISO 527
Flexural modulus	MPa	2000	ISO 178
Impact strength, Charpy	kJ/m <sup>2</sup>		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		7	
Hardness, Shore A	-	> 90	ISO 868
Hardness, Shore D	-	67	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

#### Extrusion

	Unit	Processing range		
Cylinder temperature profile	°C	220	-	255
Die temperature profile	°C	240	-	255
Tool/Roll temperature	°C	90	-	60

### Notes

Drying of the product is recommended for 2-3 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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