

Item Description

Item ID

PRE-ELEC[®] PE 12841
PE12841

PE-LLD extrusion compound
Electrically conductive
Flexible

Typical end product
Applications

Flextubes
Profiles
Sheets

PRE-ELEC[®] PE 12841 is a conductive flexible thermoplastic compound based on polyethylene with good low temperature properties. The conductivity is achieved by using special conductive carbon black. In addition to a low electrical resistivity, the product has excellent mechanical properties and is easy to extrude.

Special properties	Unit	Value	Method
Volume resistivity(*)	Ω.cm	19	PRE021
Surface resistance(*)	Ω	7E+02	IEC 61340-2-3

General properties	Unit	Value	Method
Specific gravity	g/cm ³	1,05	ISO 1183
Melt flow rate at 190°C 5.0 kg	g/10 min	1	ISO 1133
Mould shrinkage	%	1.4-1.6	ISO 294-4
Vicat, Rate A	°C	102	ISO 306/A50
Vicat, Rate B	°C	71	ISO 306/B50
HDT, 0.45 MPa	°C	62	ISO 75/Bf
HDT, 1.80 MPa	°C	41	ISO 75/Af

Mechanical properties	Unit	Value	Method
Tensile strength(*)	MPa	20	ISO 527
Tensile strain at break(*)	%	600	ISO 527
Flexural modulus(*)	MPa	400	ISO 178
Impact strength, Charpy	kJ/m ²		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		NB	
Unnotched, -20°C		NB	
Notched, -20°C		NB	
Hardness, Shore D(*)	-	61	ISO 868

MFR is measured from granulates

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

*) extruded tape; Thickness 600-800 µm

Item Description

Item ID

PRE-ELEC[®] PE 12841
PE12841

Visit Premix Data Center for more detailed information of our products at www.premixgroup.com/data-center-main

Processing instructions

	Unit	Processing range
Extrusion		
Cylinder temperature profile	°C	160 - 200
Die temperature profile	°C	190 - 200
Tool/Roll temperature	°C	70 - 50

Notes

Drying of the product is recommended for 2-3 hours at 80°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.

The information in this datasheet represents typical values obtained by us, and shall not be regarded as a product specification. The right to make any changes to the content and appearance of this document is reserved by Premix Oy. We condition that the product will be inspected and qualified by the customer for their process to meet the specific requirements set by application, processing equipment and the end product. The user of this product is held responsible for the evaluation of this product's suitability concerning applied legislation and possible patent infringements. We do not intentionally add or incorporate hazardous substances in our production.

PRE-ELEC[®] is a registered trademark of Premix.

PE12841-89