

Item Description

Item ID

PRE-ELEC[®] PE 17800
PE17800

PE-LD concentrate
Electrically conductive

Typical end product
Foam

Applications
Sheets

PRE-ELEC[®] PE 17800 is a highly conductive thermoplastic concentrate based on LDPE. The conductivity is achieved by using a special conductive carbon black.

The provided percolation curve is for reference only. Dilution was performed on a lab scale, and conductivity was measured from a non-foamed tape sample. The optimal ratio of concentrate to dilution polymer must be determined through testing, as results will vary depending on processing conditions and dilution polymer.

This product is intended as a base material for foamed applications. It does not contain any chemical foaming agents.

The values are measured with non-diluted concentrate. The exception is SR, which is measured with 50% dilution.

Special properties	Unit	Value	Method
Volume resistivity(*)	$\Omega \cdot \text{cm}$	2	PRE021
Surface resistance(*) - See percolation curve	Ω	1E3-1E4	IEC 61340-2-3

General properties	Unit	Value	Method
Density(*)	g/cm^3	1.15	ISO 1183
Melt flow rate at 190°C	g/10 min		ISO 1133
10.0 kg		1	

Mechanical properties	Unit	Value	Method
Stress at break(*)	MPa	16	ISO 527
Strain at break(*)	%	100	ISO 527

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	160	-	200
Die temperature profile	°C	190	-	200
Tool/Roll temperature	°C	70	-	50

Notes

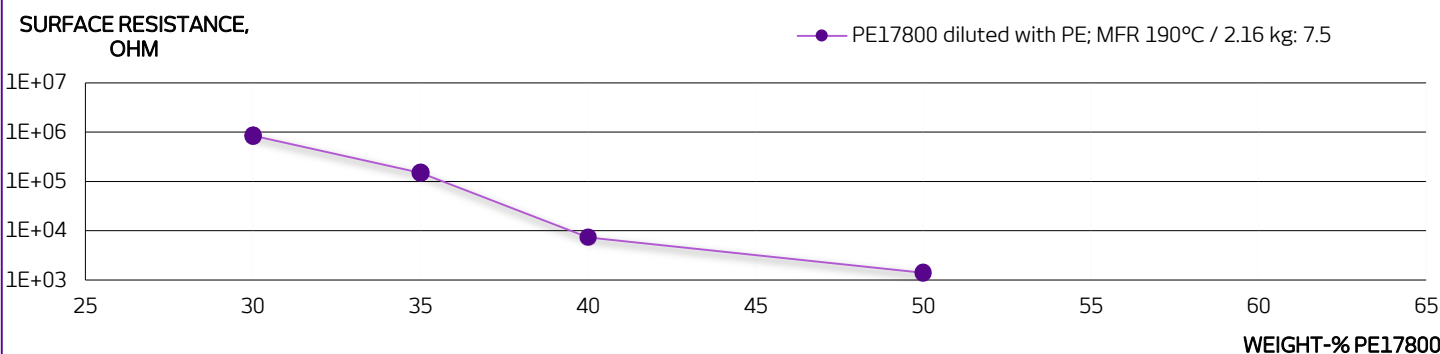
Drying of the product is recommended for 1-2 hours at 60-65°C prior to use.

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.

Percolation curve example



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