

Item Description

Item ID

PRE-ELEC[®] PS 19660
PS19660

PS concentrate
Electrically conductive

Typical end product
Sheets

Applications
Thermoformed trays

PRE-ELEC[®] PS 19660 is a conductive thermoplastic concentrate based on polystyrene. Conductivity is achieved by using a high concentration of special conductive carbon black. It can be diluted with natural or recycled polystyrene. The actual ratio of the polymers should always be tested. It can be both mono- and co-extruded.

The values with the exception of MFR are measured from dilution: 50% HIPS, MFI 4 (200°C / 5 kg)

Special properties	Unit	Value	Method
Volume resistivity(* - See percolation curve	$\Omega \cdot \text{cm}$	60	PRE021
Surface resistance(*)	Ω	1E+03	IEC 61340-2-3
General properties	Unit	Value	Method
Specific gravity	g/cm^3	1.10	ISO 1183
Melt flow rate at 200°C	g/10 min		ISO 1133
21.6 kg		0.2	
Mechanical properties	Unit	Value	Method
Tensile strength(*)	MPa	34	ISO 527
Yield strength(*)	MPa	34	ISO 527
Tensile strain at break(*)	%	69	ISO 527
Tensile strain at yield(*)	%	70	ISO 527
Flexural modulus	MPa	1600	ISO 178
Tensile modulus	MPa	900	ISO 527
Impact strength, Charpy	kJ/m^2		ISO 179
Unnotched, +23°C		NB	
Notched, +23°C		10	
Unnotched, -20°C		NB	
Notched, -20°C		5	
Hardness, Shore A	-	> 90	ISO 868
Hardness, Shore D	-	70	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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www.premixgroup.com/data-center/

Processing instructions

Extrusion

Cylinder temperature profile
 Die temperature profile
 Tool/Roll temperature

Unit

°C
 °C
 °C

Processing range

180 - 220
 200 - 220
 90 - 60

Notes

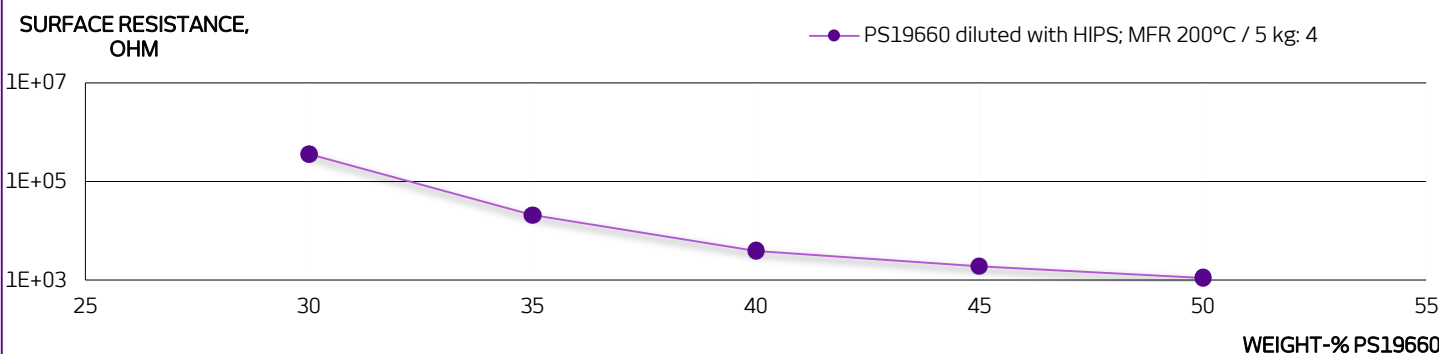
Drying of the product is recommended for 2-3 hours at 80°C prior to use.

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.

Percolation curve example



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