

## Premix Thermoplastics PRE-ELEC® ESD 6610 Static Dissipative Thermoplastic Compound

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene, Impact Modified; Molded/Extruded

### Material Notes:

PRE-ELEC® ESD 6610 is a static dissipative thermoplastic compound based on high impact polystyrene. The dissipative property is permanent and built into the polymer chain. PRE-ELEC® ESD 6610 has been developed for extrusion of thermoformable multilayer sheets and injection molding. It has been designed to full strict ionic purity requirements. Surface resistance values of 10<sup>8</sup> Ω (EOS/ESD S11.11-1993, IEC 61340-5-1) can be achieved with optimum processing parameters. The products made out of PRE-ELEC® ESD 6610 are washable, reusable, recyclable. PRE-ELEC® ESD 6610 is whitish in colour and can be coloured into various bright colours. Applications: Injection moulded boxes, bins, thermoformed trays and clamshells when permanent ESD protection is required. These products can be used in electronics, medical, pharmaceutical and paper handling industries. Processing: PRE-ELEC® ESD 6610 compound can be processed in normal processing conditions as with polystyrene. Test Specimen: 10[mm] wide moulded rod Information from Premix OY

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Premix-Thermoplastics-PRE-ELEC-ESD-6610-Static-Dissipative-Thermoplastic-Compound.php](http://www.lookpolymers.com/polymer_Premix-Thermoplastics-PRE-ELEC-ESD-6610-Static-Dissipative-Thermoplastic-Compound.php)

Physical Properties	Metric	English	Comments
Density	1.04 g/cc	0.0376 lb/in <sup>3</sup>	
Thickness	102 microns	4.00 mil	
Linear Mold Shrinkage	0.0060 - 0.0080 cm/cm	0.0060 - 0.0080 in/in	ISO 294-4
Melt Flow	11 g/10 min @Load 5.00 kg, Temperature 200 °C	11 g/10 min @Load 11.0 lb, Temperature 392 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	70 @Thickness 1.00 mm	70 @Thickness 0.0394 in	ISO 868
Tensile Strength	16.0 MPa	2320 psi	ISO 527
Tensile Strength, Yield	17.0 MPa	2470 psi	ISO 527
Elongation at Break	5.0 %	5.0 %	ISO 527
Elongation at Yield	4.0 %	4.0 %	ISO 527
Flexural Modulus	1.20 GPa	174 ksi	ISO 178
Izod Impact, Notched (ISO)	4.00 kJ/m <sup>2</sup> @Thickness 4.00 mm, Temperature 23.0 °C	1.90 ft-lb/in <sup>2</sup> @Thickness 0.157 in, Temperature 73.4 °F	ISO 180

Mechanical Properties <i>ISO Impact, Unnotched (ISO)</i>	14.0 kJ/m <sup>2</sup> Metric	6.66 ft-lb/in <sup>2</sup> English	Comments ISO 180
	@Thickness 4.00 mm, Temperature 23.0 °C	@Thickness 0.157 in, Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	84.0 °C	183 °F	75/Method Bf
Deflection Temperature at 1.8 MPa (264 psi)	72.0 °C	162 °F	75/Method Af
Vicat Softening Point	84.0 °C	183 °F	ISO 306/B50
	98.0 °C	208 °F	ISO 306/A50

Electrical Properties	Metric	English	Comments
Surface Resistance	1.00e+9 ohm  @Thickness 0.00100 mm	1.00e+9 ohm  @Thickness 0.0000394 in	ISO IEC 61340-5-1
Static Decay	<= 1.0 sec  @Thickness 1.00 mm	<= 1.0 sec  @Thickness 0.0394 in	ISO IEC 61340-5-1

Processing Properties	Metric	English	Comments
Zone 1	180 °C	356 °F	Cylinder
	200 °C	392 °F	Die
Zone 2	190 °C	374 °F	Cylinder
	200 °C	392 °F	Die
Zone 3	190 °C	374 °F	Die
	200 °C	392 °F	Cylinder
Zone 4	200 °C	392 °F	Die
	200 °C	392 °F	Cylinder
Zone 5	200 °C	392 °F	Die
	200 °C	392 °F	Cylinder
Melt Temperature	190 - 210 °C	374 - 410 °F	
Mold Temperature	30.0 - 70.0 °C	86.0 - 158 °F	
Roll Temperature	50.0 °C	122 °F	3rd Roll

Processing Properties	Metric	English	Comments
	60.0 °C	140 °F	2nd Roll
Drying Temperature	70.0 - 80.0 °C	158 - 176 °F	Pre-drying in a dehumidifier
Dry Time	3 - 4 hour	3 - 4 hour	
Injection Pressure	75.2 - 120 MPa	10900 - 17400 psi	
Hold Pressure	40.0 - 60.0 MPa	5800 - 8700 psi	Post Pressure
Shelf Life	12.0 Month	12.0 Month	Normal Storing Conditions

Descriptive Properties	Value	Comments
Injection Speed	Moderate	

## Contact Songhan Plastic Technology Co.,Ltd.

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