

## Premix Thermoplastics PRE-ELEC® ESD 5350 Static Dissipative Thermoplastic Compound

Category : Polymer , Thermoplastic , Polypropylene (PP) , Polypropylene, Molded

### Material Notes:

PRE-ELEC® ESD 5350 is a static dissipative thermoplastic compounds based on polypropylene homopolymer. The dissipative property is permanent and built into the polymer chain. Surface resistance values of 10<sup>10</sup> Ω with PRE-ELEC® (EOS/ESD S11.11-1993, IEC 61340-5-1) can be achieved. The products made out of these PRE-ELEC® ESD products are washable, reusable and recyclable. The grade is designed for injection molding of transparent parts. In addition, PRE-ELEC® ESD 5350 can be used in clean applications with extremely low amount of extractable ions. The melt flow property of PRE-ELEC® ESD 5350 is tailored to fit the requirements of injection molding. PRE-ELEC® ESD 5350 is RoHS compliant. Applications: Bins and other injection molded parts, where permanent ESD protection and high cleanliness are required. The product can be used mainly in electronics packaging, but in many other application areas as well. Processing: PRE-ELEC® ESD 5350 compound can be processed in normal processing conditions as with polypropylene. 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-5350-Static-Dissipative-Thermoplastic-Compound.php](http://www.lookpolymers.com/polymer_Premix-Thermoplastics-PRE-ELEC-ESD-5350-Static-Dissipative-Thermoplastic-Compound.php)

Physical Properties	Metric	English	Comments
Density	0.920 g/cc	0.0332 lb/in <sup>3</sup>	
Thickness	102 microns	4.00 mil	
Linear Mold Shrinkage	0.016 cm/cm	0.016 in/in	ISO 294-4
Melt Flow	8.0 g/10 min @Load 2.16 kg, Temperature 230 °C	8.0 g/10 min @Load 4.76 lb, Temperature 446 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength	16.0 MPa	2320 psi	ISO 527
Tensile Strength, Yield	30.0 MPa	4350 psi	ISO 527
Elongation at Break	200 %	200 %	ISO 527
Elongation at Yield	15 %	15 %	ISO 527
Flexural Modulus	1.50 GPa	218 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
Izod Impact, Unnotched (ISO)	NB @Thickness 4.00 mm,	NB @Thickness 0.157 in,	ISO 180

Mechanical Properties	Temperature 23.0 °C Metric	Temperature 73.4 °F English	Comments
<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Deflection Temperature at 0.46 MPa (66 psi)	90.0 °C	194 °F	75/Method Bf
Deflection Temperature at 1.8 MPa (264 psi)	55.0 °C	131 °F	75/Method Af
<b>Optical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Transmission, Visible	90 %	90 %	transparent; thickness not quantified
<b>Electrical Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Surface Resistance	1.00e+10 - 1.00e+11 ohm	1.00e+10 - 1.00e+11 ohm	ISO IEC 61340-5-1
Static Decay	2.0 sec	2.0 sec	ISO IEC 61340-5-1
<b>Processing Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
Zone 1	180 °C	356 °F	Cylinder
	210 °C	410 °F	Die
Zone 2	190 °C	374 °F	Cylinder
	210 °C	410 °F	Die
Zone 3	200 °C	392 °F	Die
	200 °C	392 °F	Cylinder
Zone 4	210 °C	410 °F	Die
	210 °C	410 °F	Cylinder
Zone 5	210 °C	410 °F	Die
	210 °C	410 °F	Cylinder
Melt Temperature	190 - 210 °C	374 - 410 °F	
Mold Temperature	30.0 - 40.0 °C	86.0 - 104 °F	
Roll Temperature	40.0 °C	104 °F	2nd Roll
	40.0 °C	104 °F	3rd Roll
	50.0 °C	122 °F	1st Roll
Drying Temperature	60.0 - 80.0 °C	140 - 176 °F	Pre-drying in a dehumidifier

Processing Properties	Metric	English	Comments
Dry Time	2-4 hour	2-4 hour	
Injection Pressure	60.0 - 80.0 MPa	8700 - 11600 psi	
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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