

INTRODUCTION

TOPSTAT roll stock is High Impact Polystyrene (HIPS) with an internal additive that allows us to target specific ohms range desired by our customer. We can provide conductive, static dissipative, or anti-static performance for your application.

The possible range for conductive, static dissipative, or anti-static performance of products is between $10^3 - 10^{12}$ ohm/sq (ohms per square). These ranges are based on international standards such as ANSI/ESD S20.20 and IEC 61340-5-1. They provide a general guideline, but the specific requirements for a particular application may vary depending on various factors controlled by the customers.

PROPERTIES

Property	Value	Test Method
Surface Resistivity	$\leq 10^8$	-----
Expected Range	$10^8 - 10^{10}$ Ohms	-----
Static Decay Rate	< .01 Sec @ 10% RH	-----
Specific Gravity	1.09	ATSM D-792
Flexural Modulus	220,000 psi	ATSM D-790B
Tensile Elongation (Break)	40%	ATSM D-638
Notched Izod Impact	5 ft-lbs./in	ATSM D-256A
Heat Deflection Temp @ 264 psi	154 °F	ATSM D-648

AVAILABLE DIMENSIONS

- Gauge
 - .025 - .070
- Sheet width
 - 25" – 31" in volumes $\geq 2,500$ pounds
 - 25" – 60" in volumes $\geq 15,000$

BENEFITS

- Carbon black provides permanent anti-static properties.
- Can achieve surface resistivity ranging from $10^8 \Omega/\text{sq}$ to $10^{10} \Omega/\text{sq}$.
- Good performance even in low humidity environments.

RECOMMENDED USAGE

- Processors will need to confirm the optimum Ohms Range for each end use.
- All values are for preformed Materials.
- Electrical values will vary with each individual design.

This information is intended to be used only as a guideline for designers and processors of modified thermoplastics for thermoformed applications. Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. Any information regarding performance or use is only offered as suggestion for investigation for use, based upon T.O. Plastics experience. T.O. Plastics makes no warranties, expressed or implied, concerning the suitability or fitness of any of its products. It is the responsibility of the customer to determine that the product is safe, lawful, and technically suitable for the intended use.