

**Product Description:** Stat-Rite® S680 is a static dissipative *PETG* alloy. Stat-Rite S680 utilizes the patented Stat-Rite inherently dissipative polymer (IDP) alloy system to provide clean, permanent ESD protection. Stat-Rite® IDP alloys provide consistent static dissipation even when extruded, injection molded or thermoformed into components.

Properties (typical)	S680	Units	Test Method
Host Polymer	PETG		
Filler	IDP Alloy		
Color	Light Blue		
Specific Gravity	1.25	g/cc	ASTM D-792
<b>Electrical Properties:</b>			
Surface Resistivity	$2 \times 10^9$	$\Omega$ /square	ASTM D-257 (50% R.H.)
Surface Resistance	$8 \times 10^8$	$\Omega$	ESD S11.11 (12% R.H.)
Volume Resistivity	$2 \times 10^9$	$\Omega$ -cm	ASTM D-257
Static Decay Rate			
+5000 V to 50 V	0.01	Seconds	FTMS-101C (12% R.H.)
-5000 V to -50 V	0.01		
+1000 V to 100 V	0.1	Seconds	Charged Plate Monitor (50% R.H.)
Tribocharge (Nitrile Glove)	10	Volts	Lubrizol Advanced Materials Test Method
<b>Mechanical Properties:</b>			
Tensile Strength @ Break	4100 (28)	psi (MPa)	ASTM D-638
Tensile Elongation, Break	350	%	ASTM D-638
Tensile Modulus	160,000 (1240)	psi (MPa)	ASTM D-638
Flexural Modulus	180,000 (1240)	psi (MPa)	ASTM D-790-92
HDT @ 66 psi	140 (60)	°F (°C)	ASTM D-648
HDT @ 264 psi	131 (55)		
Notched Izod Impact	18 (942)	ft-lb / in (J/m)	ASTM D-256-92
These are typical values and should not be used for establishing product specifications. Contact Lubrizol Advanced Materials, Inc if you need data for this purpose.			

- Stat-Rite® S680 is available in sheet or pellet form.

### FEATURES

- Permanent static dissipative
- Humidity insensitive
- Ultra-clean: low off-gassing, low ionic contamination
- Colorable
- Durable: Can be used for years and years

### APPLICATIONS

- Medical device packaging
- Electronic component handling
- Hard disk packaging

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**HANDLING CONSIDERATIONS**

Properties of all Stat-Rite® polymer products in the molten state are adversely affected by moisture. Although Stat-Rite products are dry when packaged, trace amounts of moisture can be absorbed during storage and handling. For best results, always keep this material in unopened factory packaging until use.

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**Typical Cleanliness Properties:**

Cleanroom Properties	Test Method	Test Results
<b>Outgassing Components:</b>	<b>Lubrizol Advanced Materials Test Method:</b> #3010-3	µg/g
Total Organics		3.0
MMA		0.1
Styrene		<0.02
Toluene		<0.02
<b>Ionic Content – Anions</b>	<b>Lubrizol Advanced Materials Test Method</b> #3010-4	ng/cm <sup>2</sup>
F-		<2.5
Cl-		3
NO <sub>3</sub> <sup>-</sup>		<0.5
SO <sub>4</sub> <sup>-</sup>		<0.6
PO <sub>4</sub> <sup>-</sup>		2
<b>Non-Volatile Residue</b>	<b>Lubrizol Advanced Materials Test Method</b> #3010-5	µg/cm <sup>2</sup> 1.1