



# LONESTAR ELECTROSTATIC SOLUTIONS

5213 PINWOOD DR. MCKINNEY TEXAS 75071

Phone: 1-770-856-3119

Email: [LonestarESD@outlook.com](mailto:LonestarESD@outlook.com)

Website: [LonestarESD.com](http://LonestarESD.com)

## SUMMARY

Testing of material samples were performed to ANSI/ESD STM11.11 and 11.12 to determine Surface and Volume resistance of the material. A qty of 6 samples were conditioned to the requirements of the test methods. Each was then tested per the referenced test methods with data recorded and shown below. Results showed a range on Surface Resistance of  $10^5$  Ohms. Range for Volume Resistance is  $10^5$  Ohms.

## MATERIAL:

22 PETG PD

## TEST CONDITIONS:

Qty 6 specimens @ 12.9% RH, 22.9°C, 54 hours conditioning.

Qty 6 specimens @ 50.5% RH, 23.3°C, 55 hours conditioning.

Test Voltage (@ Upper Resistance): 100 Volts

Electrification Period (@ Upper Resistance): 8-10 seconds

## TEST DATA

## TEST METHOD/S:

- ANSI/ESD STM11.11-2022
- ANSI/ESD STM11.12-2021

## STANDARDS:

- PROSTAT PRS-801  
RESISTANCE METER (CAL  
DATE 8-2024)
- PROSTAT PRF-911  
CONCENTRIC RING (CAL  
DATE 2-2024)
- ALL STANDARDS ON 1  
YEAR CAL CYCLE.

TABLE 1: SURFACE RESISTANCE DATA

Test Method	Surface Resistance (Ohms) @ 12.9% RH, 22.9°C, 54 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
	$7.2 \times 10^5$	$6.8 \times 10^5$	$6.7 \times 10^5$	$7.4 \times 10^5$	$6.5 \times 10^5$	$6.5 \times 10^5$	$6.5 \times 10^5$	$7.4 \times 10^5$	$6.85 \times 10^5$

Test Method	Surface Resistance (Ohms) @ 50.5% RH, 23.3°C, 55 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
	$4.1 \times 10^5$	$4.5 \times 10^5$	$5.1 \times 10^5$	$4.7 \times 10^5$	$4.3 \times 10^5$	$4.0 \times 10^5$	$4.0 \times 10^5$	$5.1 \times 10^5$	$4.45 \times 10^5$

TABLE 2: VOLUME RESISTANCE DATA

Test Method	Volume Resistance (Ohms) @ 12.9% RH, 22.9°C, 54 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
	6.0 x 10 <sup>5</sup>	6.2 x 10 <sup>5</sup>	5.7 x 10 <sup>5</sup>	6.5 x 10 <sup>5</sup>	6.0 x 10 <sup>5</sup>	5.8 x 10 <sup>5</sup>	5.7 x 10 <sup>5</sup>	6.2 x 10 <sup>5</sup>	6.03 x 10 <sup>5</sup>

Test Method	Volume Resistance (Ohms) @ 50.5% RH, 23.3°C, 55 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
	4.5 x 10 <sup>5</sup>	4.3 x 10 <sup>5</sup>	4.3 x 10 <sup>5</sup>	4.1 x 10 <sup>5</sup>	3.8 x 10 <sup>5</sup>	4.4 x 10 <sup>5</sup>	3.8 x 10 <sup>5</sup>	4.5 x 10 <sup>5</sup>	4.23 x 10 <sup>5</sup>