



LONESTAR ELECTROSTATIC SOLUTIONS

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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 – 10^6 Ohms. Range for Volume Resistance is 10^6 – 10^7 Ohms.

MATERIAL:

S-Stat Soft Stat 50145
Sample Thickness: 0.125"

TEST CONDITIONS:

Qty 6 specimens @ 12.8% RH, 23.2°C, 62 hours conditioning.
Qty 6 specimens @ 50.3% 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 1-2023)
- PROSTAT PRF-911
CONCENTRIC RING (CAL
DATE 2-2023)
- ALL STANDARDS ON 1
YEAR CAL CYCLE.

TABLE 1: SURFACE RESISTANCE DATA

Test Method	Surface Resistance (Ohms) @ 12.8% RH, 23.2°C, 62 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.11	7.3×10^5	9.8×10^5	3.2×10^6	2.6×10^6	3.5×10^6	1.9×10^6	7.3×10^5	3.5×10^6	2.15×10^6

Test Method	Surface Resistance (Ohms) @ 50.3% RH, 23.3°C, 55 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.11	5.6×10^5	9.8×10^5	4.3×10^5	5.7×10^5	5.8×10^5	8.3×10^5	4.3×10^5	9.8×10^5	6.58×10^5

TABLE 2: VOLUME RESISTANCE DATA

Test Method	Volume Resistance (Ohms) @ 12.8% RH, 23.2°C, 62 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	1.7×10^7	3.2×10^7	2.0×10^7	2.3×10^7	1.2×10^7	1.4×10^7	1.2×10^7	3.2×10^7	1.97×10^7

Test Method	Volume Resistance (Ohms) @ 50.3% RH, 23.3°C, 55 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	4.6×10^6	1.2×10^7	1.1×10^6	5.2×10^6	4.2×10^6	4.2×10^6	1.1×10^6	1.2×10^7	5.21×10^6