



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 10^3 – 10^3 Ohms. Range for Volume Resistance is 10^3 – 10^3 Ohms.

MATERIAL:

M-Shield V15500 PU
Sample Thickness: 0.125"

TEST CONDITIONS:

Qty 6 specimens @ 12.4% RH, 23.2°C, 70 hours conditioning.
Qty 6 specimens @ 50.3% RH, 23.4°C, 57 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) @ 12.4% RH, 23.2°C, 70 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.11	8.9×10^3	7.0×10^3	5.7×10^3	6.5×10^3	6.4×10^3	6.9×10^3	5.7×10^3	8.9×10^3	6.90×10^3

Test Method	Surface Resistance (Ohms) @ 50.3% RH, 23.4°C, 57 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.11	7.4×10^3	2.7×10^3	2.9×10^3	6.2×10^3	4.2×10^3	3.8×10^3	2.7×10^3	7.4×10^3	4.53×10^3

TABLE 2: VOLUME RESISTANCE DATA

Test Method	Volume Resistance (Ohms) @ 12.4% RH, 23.2°C, 70 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	6.3×10^3	3.1×10^3	3.1×10^3	5.9×10^3	6.4×10^3	6.7×10^3	3.1×10^3	6.7×10^3	5.25×10^3

Test Method	Volume Resistance (Ohms) @ 50.3% RH, 23.4°C, 57 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	5.3×10^3	2.5×10^3	2.2×10^3	5.1×10^3	5.8×10^3	5.2×10^3	2.2×10^3	5.8×10^3	4.35×10^3