



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^{11} – 10^{11} Ohms. Range for Volume Resistance is 10^{10} – 10^{11} Ohms.

MATERIAL:

AS400

Sample Thickness: 0.125"

TEST CONDITIONS:

Qty 6 specimens @ 12.9% RH, 23.2°C, 65 hours conditioning.

Qty 6 specimens @ 50.2% RH, 23.3°C, 52 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-80 I
RESISTANCE METER (CAL
DATE 1-2023)
- PROSTAT PRF-9 I I
CONCENTRIC RING (CAL
DATE 2-2023)
- ALL STANDARDS ON 1
YEAR CAL CYCLE.

TABLE 1: SURFACE RESISTANCE DATA

Test Method	Surface Resistance (Ohms) @ 12.9% RH, 23.2°C, 65 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.11	6.8 x 10^{11}	6.5 x 10^{11}	7.1 x 10^{11}	6.9 x 10^{11}	6.9 x 10^{11}	6.7 x 10^{11}	6.5 x 10^{11}	7.1 x 10^{11}	6.82 x 10^{11}

Test Method	Surface Resistance (Ohms) @ 50.2% RH, 23.3°C, 52 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.11	1.2 x 10^{11}	1.6 x 10^{11}	1.6 x 10^{11}	1.4 x 10^{11}	1.1 x 10^{11}	1.3 x 10^{11}	1.1 x 10^{11}	1.6 x 10^{11}	1.37 x 10^{11}

TABLE 2: VOLUME RESISTANCE DATA

Test Method	Volume Resistance (Ohms) @ 12.9% RH, 23.2°C, 65 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	2.2 x 10 ¹¹	2.0 x 10 ¹¹	2.4 x 10 ¹¹	2.1 x 10 ¹¹	2.1 x 10 ¹¹	1.9 x 10 ¹¹	1.1 x 10 ¹¹	1.6 x 10 ¹¹	2.12 x 10 ¹¹

Test Method	Volume Resistance (Ohms) @ 50.2% RH, 23.3°C, 52 hours conditioning								
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	5.8 x 10 ¹⁰	5.1 x 10 ¹⁰	6.1 x 10 ¹⁰	5.7 x 10 ¹⁰	5.7 x 10 ¹⁰	4.7 x 10 ¹⁰	4.7 x 10 ¹⁰	6.1 x 10 ¹⁰	5.52 x 10 ¹⁰