

# 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<sup>3</sup> Ohms Range for Volume Resistance is 10<sup>3</sup> Ohms

#### **MATERIAL:**

**Conductive Crosslink Foam** 

#### **TEST CONDITIONS:**

Qty 6 specimens @ 12.5% RH, 22.8°C, 50 hours conditioning. Qty 6 specimens @ 50.2% RH, 22.4°C, 49 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 8-2025)
- PROSTAT PRF-911
  CONCENTRIC RING (CAL
  DATE 2-2025)
- ALL STANDARDS ON I YEAR CAL CYCLE.

#### **TABLE 1: SURFACE RESISTANCE DATA**

	Surface Resistance (Ohms) @ 12.5% RH, 22.8°C, 50 hours conditioning								
Test Method	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.11	8.7 x 10 <sup>3</sup>	8.5 x 10 <sup>3</sup>	8.7 x 10 <sup>3</sup>	8.2 x 10 <sup>3</sup>	8.1 x 10 <sup>3</sup>	8.3 x 10 <sup>3</sup>	8.1 x 10 <sup>3</sup>	8.7 x 10 <sup>3</sup>	8.42 x 10 <sup>3</sup>

Surface Resistance (Ohms) @ 50.2% RH, 22.4°C, 49 hours conditioning Sample Sample Sample Sample Sample Sample Min Max Mean 2 6 Test Method 1 3 4 5 8.12 x ANSI/ESD  $8.2 \times 10^{3}$  $8.8 \times 10^{3}$  $7.8 \times 10^{3}$  $8.0 \times 10^{3}$  $7.7 \times 10^3$  $7.8 \times 10^{3}$  $8.2 \times 10^{3}$  $8.8 \times 10^{3}$ **STM 11.11**  $10^{3}$ 

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## **TABLE 2: VOLUME RESISTANCE DATA**

	Volume Resistance (Ohms) @ 12.5% RH, 22.8°C, 50 hours conditioning								
Test Method	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	7.7 x 10 <sup>3</sup>	7.7 x 10 <sup>3</sup>	7.9 x 10 <sup>3</sup>	7.6 x 10 <sup>3</sup>	7.7 x 10 <sup>3</sup>	7.5 x 10 <sup>3</sup>	7.5 x 10 <sup>3</sup>	7.9 x 10 <sup>3</sup>	7.68 x 10 <sup>3</sup>

	Volume Resistance (Ohms) @ 50.2% RH, 22.4°C, 49 hours conditioning								
Test Method	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Min	Max	Mean
ANSI/ESD STM 11.12	7.5 x 10 <sup>3</sup>	7.5 x 10 <sup>3</sup>	7.7 x 10 <sup>3</sup>	7.9 x 10 <sup>3</sup>	7.5 x 10 <sup>3</sup>	7.4 x 10 <sup>3</sup>	7.4 x 10 <sup>3</sup>	7.9 x 10 <sup>3</sup>	7.58 x 10 <sup>3</sup>