MICROSTAT LABORATORIES
RIVER'S EDGE TECHNICAL SERVICE

Specialists in Materials Testing and Technical Services

CERTIFICATION

July 28, 2016

Certification #: 2016-038

The following material: Pink Poly Bags - 05/16

Supplied by: Antistat USA
1000 Heritage Center Circle.
Round Rock, Texas 78664 USA

Was tested on June 21, 2016 by Carl E. Newberg, President of MicroStat Laboratories / River's Edge Technical Service, Inc. and meets the requirements specified in ANSI/ESD S20.20, and ANSI/ESD S541.

Test methods included: ANSI/ESD STM11.11

Summary of Test Data: Average Inside Surface Resistance: 7.01×10^{10} ohms
Average Outside Surface Resistance: 2.43×10^{10} ohms

Details of testing are included in test report 2016-038A dated June 22, 2016

Carl E Newberg
President
MicroStat Laboratories
River's Edge Technical Service, Inc.

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TEST REPORT

AntiStat Inc
Pink Poly Bags
05/16

TESTED FOR

Surface Resistance per ANSI/ESD STM11.11

Report #: 2016-038A
June 22nd, 2016

3907 Birmingham Ln. NW, Rochester, MN 55901 • Phone: 507-292-0230 • Fax: 507-292-0698 • www.microstatlabs.com

SUMMARY

A set of pink poly bags was submitted for testing to industry specification ANSI/ESD STM11.11 (surface resistance measurements of the inside and outside of the bags). The tested bags meet or exceed the requirements of ANSI/ESD S541 and ANSI/ESD S20.20 with surface resistances below 1 x 10^{11} ohms.

EXPERIMENTAL AND DISCUSSION

The bags were randomly selected and conditioned for 48 hours at the specified conditions (12% R.H. & 23°C) before testing was started. Testing was carried out in the conditioning environment.

Surface resistance is reported as "resistance," as specified in ANSI/ESD STM11.11. To obtain resistivity values, multiply the resistance numbers by 10. The data from this testing is included below in Table 1.

Table 1
Surface Resistance Data

Surface Resistance per ANSI/ESD STM11.11		
Sample #	Inside	Outside
1	9.24 x $10^{10}\Omega$	5.40 x $10^{10}\Omega$
2	9.59 x $10^{10}\Omega$	6.02 x $10^{10}\Omega$
3	3.89 x $10^{10}\Omega$	1.72 x $10^{10}\Omega$
4	5.79 x $10^{10}\Omega$	1.46 x $10^{10}\Omega$
5	7.70 x $10^{10}\Omega$	1.49 x $10^{10}\Omega$
6	7.69 x $10^{10}\Omega$	1.67 x $10^{10}\Omega$
Average	7.01 x $10^{10}\Omega$	2.43 x $10^{10}\Omega$
Median	7.70 x $10^{10}\Omega$	1.70 x $10^{10}\Omega$
Minimum	3.89 x $10^{10}\Omega$	1.46 x $10^{10}\Omega$
Maximum	9.59 x $10^{10}\Omega$	6.02 x $10^{10}\Omega$

EQUIPMENT USED FOR ELECTRICAL TESTING

Surface Resistance Measurements:

Keithley Model 6517a Electrometer/High Resistance Meter
ETS Model 803B Resistance Probe
ETS Model 809 Surface Resistance Verification Fixture

Carl E Newberg

June 22nd, 2016

Carl E Newberg

Date