

DESCO INDUSTRIES INCORPORATED

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QUALIFICATION REPORT – ANSI/ESD S20.20

DESCO STATFREE® UC2

DISSIPATIVE DUAL LAYER ULTRA CLEAN RUBBER

ANSI/ESD S20.20	DESCO Test Results	Test Methods
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Resistance (ohms) @ 12% RH, 23°C, 48-72 hours conditioning, N=3 specimens, 100V

Resistance-to-Groundable point	< 1.0 x 10 ⁹	See Table 1	ANSI/ESD STM4.1
Resistance Point-to-Point	< 1.0 x 10 ⁹	See Table 2	ANSI/ESD STM4.1

Resistance (ohms) @ 50% RH, 23°C, 48-72 hours conditioning, N=3 specimens, 100V

Resistance-to-Groundable point	< 1.0 x 10 ⁹	See Table 1	ANSI/ESD STM4.1
Resistance Point-to-Point	< 1.0 x 10 ⁹	See Table 2	ANSI/ESD STM4.1

Testing Equipment (Calibration records and test results are located at our corporate lab (Canton, MA)):

- Environment Chamber with ETS Automatic Humidity Controller (Model 514)
- Desco Electrodes for Surface Resistance (Model 50003)
- Desco Surface Resistance Meter (Model 19291)

Test Data:

Table 1 - Resistance-to-Groundable point

ANSI/ESD STM4.1 Test Position	RTG (ohms), at 12%RH, 23°C			RTG (ohms), at 50%RH, 23°C		
	Sample #1	Sample #2	Sample #3	Sample #1	Sample #2	Sample #3
Figure 1 – Position 1	4.26 x 10 ⁷	3.95 x 10 ⁷	5.75 x 10 ⁷	1.06 x 10 ⁷	1.03 x 10 ⁷	1.28 x 10 ⁷
Figure 1 – Position 2	3.87 x 10 ⁷	4.65 x 10 ⁷	4.03 x 10 ⁷	9.24 x 10 ⁶	9.73 x 10 ⁶	1.26 x 10 ⁷
Figure 1 – Position 3	4.95 x 10 ⁷	4.81 x 10 ⁷	4.20 x 10 ⁷	1.00 x 10 ⁷	1.04 x 10 ⁷	1.11 x 10 ⁷
Figure 1 – Position 4	4.20 x 10 ⁷	4.06 x 10 ⁷	3.79 x 10 ⁷	9.40E+06	9.47 x 10 ⁶	1.23 x 10 ⁷
Figure 1 – Position 5	6.55 x 10 ⁷	5.37 x 10 ⁷	5.33 x 10 ⁷	1.15 x 10 ⁷	1.24 x 10 ⁷	1.56 x 10 ⁷
Min.=	3.87 x 10 ⁷	3.95 x 10 ⁷	3.79 x 10 ⁷	9.24 x 10 ⁶	9.47 x 10 ⁶	1.11 x 10 ⁷
Mean =	4.68 x 10 ⁷	4.54 x 10 ⁷	4.56 x 10 ⁷	1.01 x 10 ⁷	1.04 x 10 ⁷	1.28 x 10 ⁷
Max. =	6.55 x 10 ⁷	5.37 x 10 ⁷	5.75 x 10 ⁷	1.15 x 10 ⁷	1.24 x 10 ⁷	1.56 x 10 ⁷

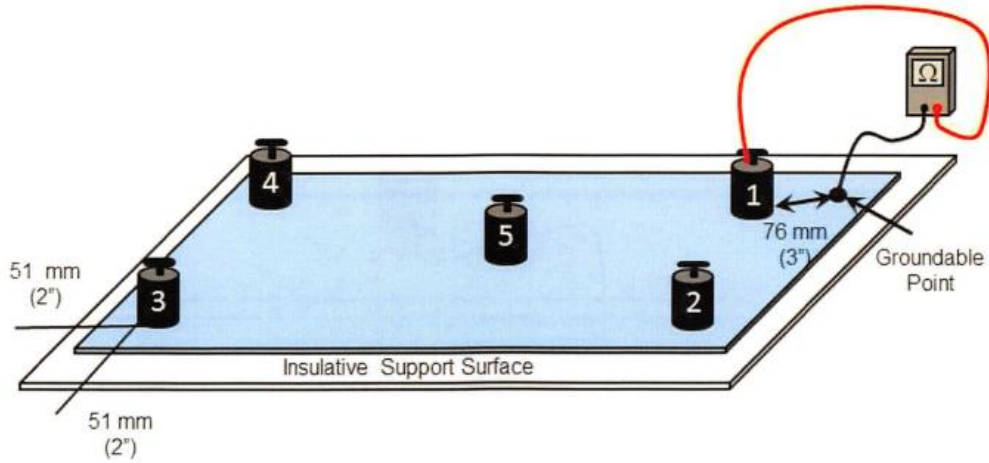
Table 2 - Resistance Point-to-Point

ANSI/ESD STM4.1 Test Position	RTT (ohms), at 12%RH, 23°C			RTT (ohms), at 50%RH, 23°C		
	Sample #1	Sample #2	Sample #3	Sample #1	Sample #2	Sample #3
Figure 2 – Set up A	1.37 x 10 ⁸	1.33 x 10 ⁸	1.14 x 10 ⁸	2.33 x 10 ⁷	2.29 x 10 ⁷	3.44 x 10 ⁷
Figure 2 – Set up B	1.28 x 10 ⁸	1.11 x 10 ⁸	8.55 x 10 ⁷	2.12 x 10 ⁷	2.24 x 10 ⁷	2.81 x 10 ⁷
Figure 2 – Set up C	1.19 x 10 ⁸	1.22 x 10 ⁸	8.66 x 10 ⁷	2.18 x 10 ⁷	2.71 x 10 ⁷	2.60 x 10 ⁷
Figure 2 – Set up D	1.33 x 10 ⁸	1.36 x 10 ⁸	9.73 x 10 ⁷	2.22 x 10 ⁷	2.38 x 10 ⁷	2.40 x 10 ⁷
Min.=	1.19 x 10 ⁸	1.11 x 10 ⁸	8.55 x 10 ⁷	2.12 x 10 ⁷	2.24 x 10 ⁷	2.40 x 10 ⁷
Mean =	1.29 x 10 ⁸	1.25 x 10 ⁸	9.52 x 10 ⁷	2.21 x 10 ⁷	2.40 x 10 ⁷	2.79 x 10 ⁷
Max. =	1.37 x 10 ⁸	1.36 x 10 ⁸	1.14 x 10 ⁸	2.33 x 10 ⁷	2.71 x 10 ⁷	3.44 x 10 ⁷

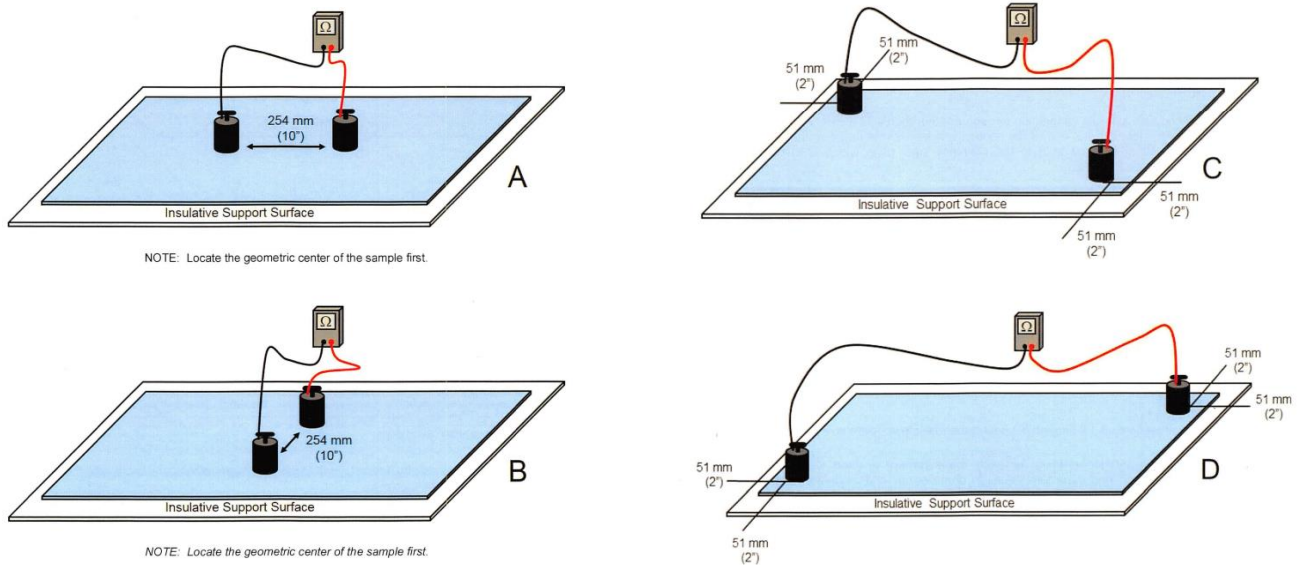
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References:



ANSI/ESD STM4.1 – Figure 1: Work-surface – Resistance-to-Groundable Point



ANSI/ESD STM4.1– Figure 2: Work-surface – Resistance Point-to-Point