

DESCO INDUSTRIES INCORPORATED

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QUALIFICATION REPORT – ANSI/ESD S20.20

DESCO STATFREE® J DISSIPATIVE FOAM 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	3.51 x 10 ⁶	2.20 x 10 ⁶	1.39 x 10 ⁶	2.91 x 10 ⁶	5.18 x 10 ⁶	2.44 x 10 ⁶
Figure 1 – Position 2	2.87 x 10 ⁶	1.82 x 10 ⁶	1.36 x 10 ⁶	2.61 x 10 ⁶	3.73 x 10 ⁶	2.15 x 10 ⁶
Figure 1 – Position 3	3.01 x 10 ⁶	1.82 x 10 ⁶	1.45 x 10 ⁶	2.74 x 10 ⁶	3.65 x 10 ⁶	2.21 x 10 ⁶
Figure 1 – Position 4	2.85 x 10 ⁶	1.75 x 10 ⁶	1.32 x 10 ⁶	2.68 x 10 ⁶	3.39 x 10 ⁶	2.03 x 10 ⁶
Figure 1 – Position 5	2.58 x 10 ⁶	1.58 x 10 ⁶	1.22 x 10 ⁶	2.47 x 10 ⁶	3.21 x 10 ⁶	2.04 x 10 ⁶
Min.=	2.58 x 10 ⁶	1.58 x 10 ⁶	1.22 x 10 ⁶	2.47 x 10 ⁶	3.21 x 10 ⁶	2.03 x 10 ⁶
Mean =	2.96 x 10 ⁶	1.83 x 10 ⁶	1.35 x 10 ⁶	2.68 x 10 ⁶	3.83 x 10 ⁶	2.17 x 10 ⁶
Max. =	3.51 x 10 ⁶	2.20 x 10 ⁶	1.45 x 10 ⁶	2.91 x 10 ⁶	5.18 x 10 ⁶	2.44 x 10 ⁶

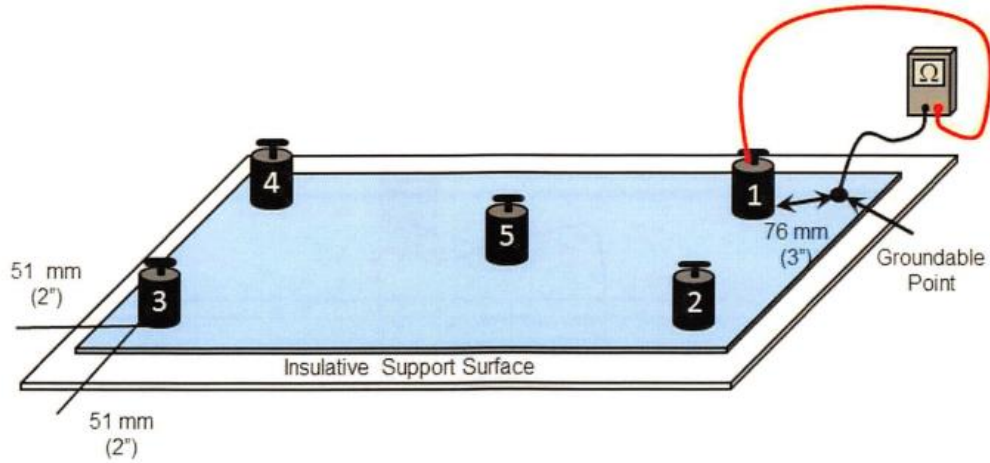
Table 2 - Resistance Point-to-Point

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	2.06 x 10 ⁵	1.67 x 10 ⁵	3.45 x 10 ⁵	2.17 x 10 ⁵	1.65 x 10 ⁵	3.58 x 10 ⁵
Figure 2 – Set up B	2.00 x 10 ⁵	1.68 x 10 ⁵	3.04 x 10 ⁵	2.10 x 10 ⁵	1.93 x 10 ⁵	3.02 x 10 ⁵
Figure 2 – Set up C	5.22 x 10 ⁵	3.75 x 10 ⁵	4.87 x 10 ⁵	4.49 x 10 ⁵	4.05 x 10 ⁵	3.94 x 10 ⁵
Figure 2 – Set up D	5.51 x 10 ⁵	3.70 x 10 ⁵	4.13 x 10 ⁵	4.22 x 10 ⁵	4.10 x 10 ⁵	4.22 x 10 ⁵
Min.=	2.00 x 10 ⁵	1.67 x 10 ⁵	3.04 x 10 ⁵	2.10 x 10 ⁵	1.65 x 10 ⁵	3.02 x 10 ⁵
Mean =	3.70 x 10 ⁵	2.70 x 10 ⁵	3.87 x 10 ⁵	3.25 x 10 ⁵	2.93 x 10 ⁵	3.69 x 10 ⁵
Max. =	5.51 x 10 ⁵	3.75 x 10 ⁵	4.87 x 10 ⁵	4.49 x 10 ⁵	4.10 x 10 ⁵	4.22 x 10 ⁵

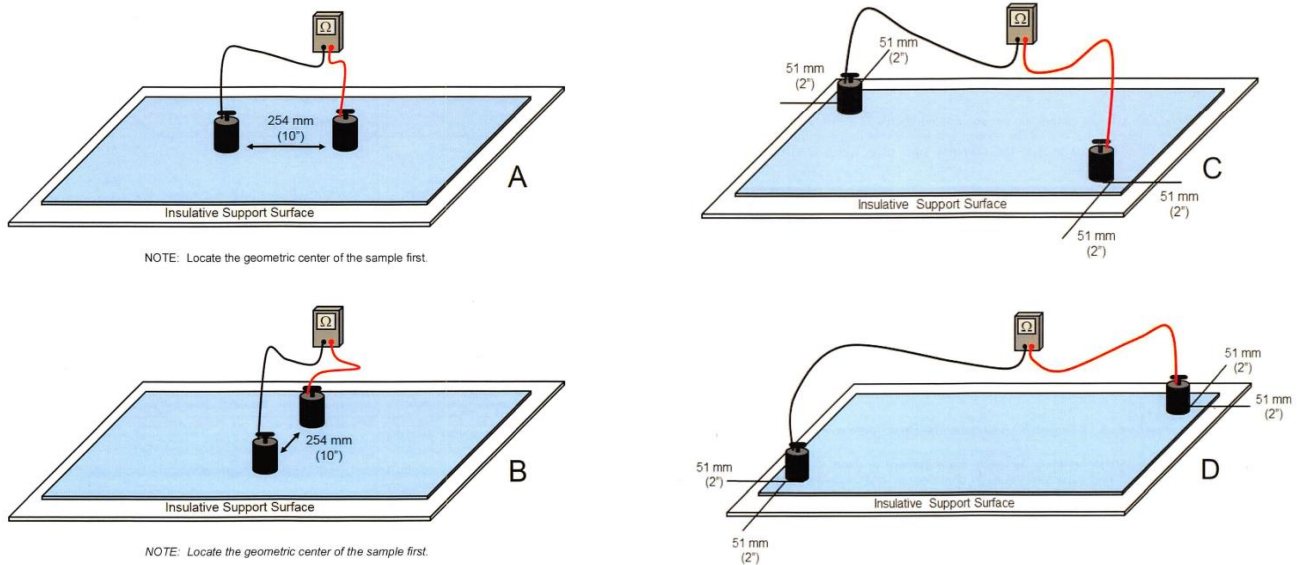
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References:



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



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