



DESCO INDUSTRIES INC

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QUALIFICATION REPORT – ANSI/ESD S20.20

SCS DS 3400 Series

ANSI/ESD S20.20	SCS Test Results	Test Methods
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Surface Resistance (ohms) @ 12% RH, 23°C, 48-72 hours conditioning, N=10 specimens, 100V

Interior (Sealing Surface)	$\geq 1.0 \times 10^4$ to $< 1.0 \times 10^{11}$	See Table 1	ANSI/ESD STM11.11
Exterior	$\geq 1.0 \times 10^4$ to $< 1.0 \times 10^{11}$	See Table 1	ANSI/ESD STM11.11

Surface Resistance (ohms) @ 50% RH, 23°C, 48-72 hours conditioning, N=6 specimens, 100V

Interior (Sealing Surface)	$\geq 1.0 \times 10^4$ to $< 1.0 \times 10^{11}$	See Table 1	ANSI/ESD STM11.11
Exterior	$\geq 1.0 \times 10^4$ to $< 1.0 \times 10^{11}$	See Table 1	ANSI/ESD STM11.11

Discharge Shielding (nJ) @ 23°C, minimum 48 hours conditioning, N=6 specimens @ 6 individual readings per specimen

@ 12% RH	< 20	See Table 1	ANSI/ESD STM11.31
@ 50% RH	< 20	See Table 1	ANSI/ESD STM11.31

Test Equipment (Calibration records and test results are located at SCS (Sanford, NC)):

For Test Method ANSI/ESD STM11.11:

- ETS Controlled Environment Chamber (Model 5532)
- SCS Surface Resistance Meter (Model 770761)
- SCS Concentric Ring Probe (Model 770007)

For Test Method ANSI/ESD STM11.31:

- ETS Controlled Environment Chamber (Model 5532)
- ETS Shielded Bag Test System (Model 4431T)

Table 1: Test Results:

Specimen	Surface Resistance (ohms) 48-72 hours conditioning				Discharge Shielding (nJ) min. 48 hours conditioning	
	Interior @ 23°C, 12%RH	Exterior @ 23°C, 12%RH	Interior @ 23°C, 50%RH	Exterior @ 23°C, 50%RH	@ 23°C, 12%RH (avg 6 individual)	@ 23°C, 50%RH (avg 6 individual)
1	3.77×10^9	1.91×10^9	2.40×10^8	5.83×10^8	0.51	0.53
2	4.51×10^9	5.17×10^9	2.06×10^8	4.11×10^8	0.55	0.57
3	4.66×10^9	5.65×10^9	2.37×10^8	2.92×10^8	0.53	0.56
4	5.39×10^9	5.06×10^9	2.48×10^8	2.81×10^8	0.49	0.59
5	5.58×10^9	6.05×10^9	2.40×10^8	2.57×10^8	0.56	0.61
6	5.69×10^9	5.24×10^9	2.06×10^8	2.64×10^8	0.60	0.58
7	4.60×10^9	5.46×10^9				
8	6.28×10^9	5.31×10^9				
9	4.09×10^9	4.51×10^9				
10	6.14×10^9	5.93×10^9				
Min Ind=	3.77×10^9	1.91×10^9	2.06×10^8	2.57×10^8	0.47	0.52
Max Ind=	6.14×10^9	6.05×10^9	2.48×10^8	5.83×10^8	0.61	0.63
Mean of Ind=	4.97×10^9	5.03×10^9	2.30×10^8	3.48×10^8	0.57	0.58
Std Dev Ind =	7.59×10^8	1.18×10^9	1.86×10^7	1.28×10^8	0.03	0.03