

QUALIFICATION REPORT – ANSI/ESD S20.20

BOARD HANDLER TRAYS

ANSI/ESD S20.20	PROTEKTIVE PAK Test Results	Test Methods
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Surface Resistance (ohms), @ 12%RH, 23°C, 48-72 hours conditioning, N=6 specimens, 100V

Board Handler Tray	$< 1.0 \times 10^6$	See Table 1	ANSI/ESD STM11.11
Static Dissipative Black Foam	$> 1.0 \times 10^4$ 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

Board Handler Tray	$< 1.0 \times 10^6$	See Table 1	ANSI/ESD STM11.11
Static Dissipative Black Foam	$> 1.0 \times 10^4$ to $< 1.0 \times 10^{11}$	See Table 1	ANSI/ESD STM11.11

Test Equipment (Calibration records and test results are located at the corporate lab (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)

Table 1: Test Results:

Test Date: 2024-04-09

Surface Resistance (ohms), 48-72 hours of conditioning

Specimen	Testing at 12% RH, 23°C		Testing at 50% RH, 23°C	
	Board Handler Tray	Foam	Board Handler Tray	Foam
1	8.60×10^5	2.91×10^5	6.36×10^5	1.94×10^5
2	8.48×10^5	2.45×10^5	1.30×10^6	2.87×10^5
3	4.55×10^5	3.86×10^5	1.70×10^6	1.92×10^5
4	1.00×10^6	1.87×10^5	1.55×10^6	3.39×10^5
5	7.55×10^5	2.22×10^5	1.25×10^6	9.21×10^5
6	8.72×10^5	3.91×10^5	2.01×10^6	1.97×10^5
Min Ind=	4.55×10^5	1.87×10^5	6.36×10^5	1.92×10^5
Max Ind=	1.00×10^6	3.91×10^5	2.01×10^6	9.21×10^5
Mean of Ind=	7.98×10^5	2.87×10^5	1.41×10^6	3.55×10^5
Std Dev Ind =	1.86×10^5	8.56×10^4	4.69×10^5	2.84×10^5

The qualification report is applicable to below Board Handler Trays Sizes:

Item	Size I.D. - L x W x D (IN)
37650	17-3/4 x 10-3/4 x 2-1/8
37651	17-7/8 x 13-5/8 x 2-1/8
37653	19-1/4 x 13-1/8 x 2-1/8
37654	19-3/8 x 15-3/4 x 2-1/8
37652	24 x 13-1/2 x 2-1/8

Dimensional tolerances are +/- 1/8" unless otherwise specified