ESD STATIC

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ProsKit® ESD Tools Solution

What is static electricity? How to prevent?

Static electricity is the imbalance of positive and negative electric charge. When two different materials contact, it will cause the rubbing. The more electrons move, the larger the static charge builds up. On production lines of electronic equipment, electronic components such as ICs will get damaged by such static charges. For static control in work areas, you can use anti-dissipative mats on floors and tables, and have people wear anti-static wrist strap, heel straps. **ProsKit**^{*} ESD series will help you to get rid of static electricity problems.

The resistance and decay time of conductor, static control products and insulator

Conductor means the materials which have the electrons held loosely and the electrons can move easily, most of metals are good conductors. **Static control product** means the products designed for static control or elimination to protect electronic components and human body against injury. **Insulator** means the materials which have the electrons held tightly and the electrons don't move well. Plastic, cloth, glass and dry air are good insulator.

CONDUCTOR	R	STATIC CONTROL PRODUCT	INSULATO	R
Resistance(Ω)	10 ⁵	10 ⁸	10 ¹²	
Decay time(SEC)	10 ⁻⁶	10 ⁻³	10 ⁰	

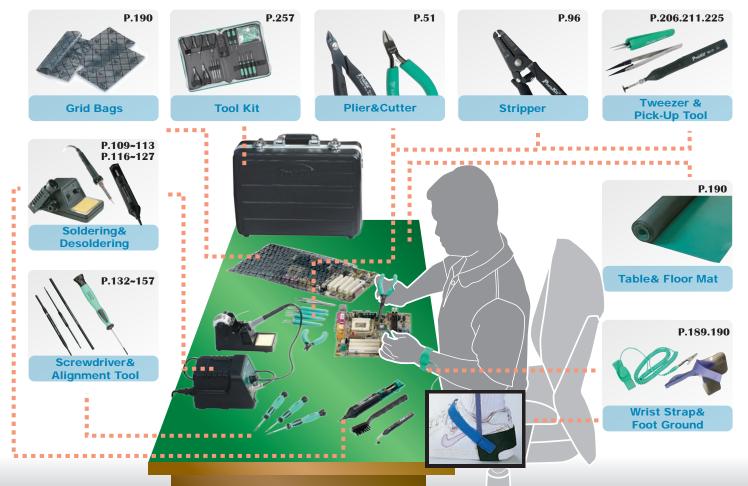
ESD Products Test Method

ProsKit[®] ESD series products are tested in accordance with ESD Association standard as following EPA (ESD protected areas) ESD Control Program Plan

ESD Control Item	Product Qualification1	
ESD Control nem	Test Method	Required Limit(s)2
Worksurface	ANSI/ESD S 4.1 and or ANSI/ESD STM 4.2	< 1 x $10^{9} \Omega$ and/or < 200 volts
Wrist Strap Cord	ANSI/ESD S1.1	0.8 x 10° to 1.2 x 10° Ω
Wrist Strap Cuff	ANSI/ESD S1.1	Interior < 1 x $10^5 \Omega$
Wilst Strap Cull	ANSI/ESD ST.T	Exterior > 1 x $10^7 \Omega$
Wrist Strap Cord Bending Life	ANSI/ESD S1.1	> 16,000 cycles
Foot Grounders	ESD SP9.2	< 1 x 10 ⁹ Ω
Flooring	ANSI/ESD S7.1	< 1 x 10 ⁹ Ω
Mobile Equipment (Working Surfaces)	ANSI/ESD S4.1	< 1 x 10 ⁹ Ω

This table is quoted from ESD Association standard ANSI/ESD S20.20-2007

ProsKit° ESD products applications







Material

PVC

Resistivity Top layers: 10⁹~10¹¹Ω

Bottom layer: 104~106Ω

Size

10M x 1M

Thickness: 2mm

Individual packing

Bulk

Material	Resistivity	Size	Individual packing
Rubber	Top layers: 10 ⁸ ~10 ¹⁰ Ω Bottom layer: 10 ⁴ ~10 ⁶ Ω	10M x 1M Thickness: 2mm	Bulk