ESD-Safe Products

Protect valuable contents from costly electrostatic discharge (ESD) and static electricity.

- Electronics
- Telecommunications
- Computers

LEWISBins+ ESD materials conform to ANSI/ESD S20.20*1999 requirements for ESD packaging. This standard requires conductive materials surface resistance to be <1.0 x 10^4 ohms and dissipative materials to be >1.0 x 10^4 ohms to <1.0 x 10^{11} ohms when tested per EOS/ESD S11.11. The materials also conform to the static decay requirement of FTM-101B, Method 4046.1 dissipating a 5,000 volt charge to 0 when grounded in less than 2 seconds. Contact your LEWISBins+ sales representative for more details on other dissipative materials that are available.

Conductive Material - XL Material is a thermoplastic polypropylene material based upon carbon black that has a surface resistance of less than 1.0 x 10^4 ohms or surface resistivity of < 1.0 x 10^5 ohms/square. XL material has a static decay rate from 5,000 volts to 0 of less than 2 seconds. This material has a useful temperature range of 40°F to 225°F, with intermittent use recommended at the higher end of the temperature range. The electrical properties of this material are permanent and unaffected by washing.

Dissipative Material - LS Material is a polypropylene material that is on upper end of the dissipative range. The material has a surface resistance greater than or equal to 1.0 x 10^8 ohms, but less than 1.0 x 10^{11} ohms or surface resistivity greater than or equal to 1.0 x 10^9 ohms/square, but less than 1.0 x 10^{12} ohms/square. LS material has a static decay rate from 5,000 volts to 0 of less than 2 seconds. This material has a useful temperature range of 40°F to 225°F, with intermittent use recommended at the higher end of the temperature range. Electrical properties are affected by humidity. This material is available on a made-to-order basis only.

ESD-Safe Materials

Property	Test Method Units	Conductive Material XL	Dissipative Materials LS	Dissipative Materials SD SMC
Surface Resistivity	ASTM D257 (ohms/square)	< 1.0 x 10^5	>= 1.0 x 10^9 < 1.0 x 10^{12}	>= 1.0 x 10^5 <= 5.0 x 10^9
Surface Resistance	EOS/ESD S11.11 (ohms)	< 1.0 x 10^4	>= 1.0 x 10^8 < 1.0 x 10^{11}	>= 1.0 x 10^4 <= 5.0 x 10^8
Static Decay	FTM-101B Method 4046.1 (seconds)	< 2 seconds	< 2 seconds	< 2 seconds
Temperature Range	°F	40°F to 225°F	40°F to 225°F	-60°F to 250°F

Note: At upper end of temperature range intermittent use is recommended.

Dissipative Material - SD SMC Material is a thermoset polyester based material that is on the lower end of the dissipative range. The material has a surface resistance greater than or equal to 1.0 x 10^4, but less than or equal to 5.0 x 10^8 ohms/square and a surface resistivity greater than or equal to 1.0 x 10^5 ohms/square, but less than or equal to 5.0 x 10^9 ohms/square. This material has a useful temperature range of -60°F to 250°F, is autoclavable and does not melt at high temperatures making it ideal for handling hot parts. The electrical properties of this material are permanent and unaffected by washing.

ESD-Safe Shelf Bins

- >> Designed to work with 12" and 18" shelving to enhance inventory control and part organization.
- >> Bins nest when empty to save space.
- >> Built-in hang lock allows bin to tilt out for full part accessibility. Hopper front optimizes part accessibility.
- >> Large flat area for adhesive identification and bar code scanning (see page 39).
- >> Each bin can accommodate up to 3 dividers.
- >> Optional conductive dividers slide in easily and lock securely to eliminate part migration.

ESD-Safe Shelf Bins

Model	Outside Dimensions (in) L	W	H	Weight (lb)	Width Divider Model	Carton Quantity
12" Shelf Bins						
SB1204-4	12.0	4.3	4.0	0.3	DSB-4	48
SB1204-6	12.0	5.6	4.0	0.5	DSB-6	36
SB1204-8	12.0	8.5	4.0	0.5	DSB-8	24
18" Shelf Bins						
SB1804-4	17.6	4.3	4.0	0.4	DSB-4	36
SB1804-7	17.6	6.6	4.0	0.6	DSB-7	24

Available Stocked Material: ● XL Conductive

ESD-Safe Part Bins

Organize your work area to efficiently store components, assemblies and circuit boards while protecting them from the damaging effects of static electricity. ESD-Safe **Part Bins** are molded in conductive material for use in cleanrooms and workstations. Combine Part Bins with **ESD-Safe Metal Storage Systems** to meet your work-in-process requirements. See pages 33-34 for more information on ESD-Safe Metal Storage Systems. *Note: PB50 is not designed for use on hanging systems.*

- >> 8 sizes available
- >> Label insert area for easy identification.
- >> Bins hang on most louvered panels or rails.
- >> Smooth gravity flow interior optimizes parts accessibility.
- >> "X" designates molded-in dividers. Available on 6 models.
- >> Solid Covers are available to further protect your parts by creating a Faraday Cage.

ESD-Safe Part Bins

Container Model	Outside Dimensions (in)			Inside Dimensions (in)		Hopper Height (in)	Weight (lb)	Carton Quantity	Flat Label ID Area (in)		Solid Covers
	L	W	H	L	W				W	H	
PB10	3.5	4.0	2.0	3.0	3.4	1.1	0.2	24	3.0	0.8	CPB10*
PB10x (with divider)	3.5	4.0	2.0	3.0	3.4	1.1	0.3	24	3.0	0.8	N/A
PB20	7.0	4.0	2.9	6.0	3.4	1.6	0.3	24	3.0	1.0	CPB20
PB20x (with divider)	7.0	4.0	2.9	6.0	3.4	1.6	0.3	24	3.0	1.0	N/A
PB22	6.6	8.8	2.9	6.0	8.1	1.6	0.6	12	2.5	7.5	CPB22*
PB22x (with divider)	6.6	8.8	2.9	6.0	8.1	1.6	0.6	12	2.5	7.5	N/A
PB30	9.5	5.8	5.0	8.4	5.0	2.6	0.7	12	3.0	1.0	CPB30
PB30x (with divider)	9.5	5.8	5.0	8.4	5.0	2.6	0.8	12	3.0	1.0	N/A
PB31	9.3	8.8	5.0	8.4	8.0	2.5	0.9	8	3.0	1.0	N/A
PB31x (with divider)	9.3	8.8	5.0	8.4	8.0	2.5	1.1	8	3.0	1.0	N/A
PB40	12.8	8.1	6.0	11.8	7.1	3.1	1.5	12	3.0	1.0	N/A
PB41	12.8	11.4	6.0	11.8	10.5	3.1	1.6	12	3.0	1.0	N/A
PB41x (with divider)	12.8	11.4	6.0	11.8	10.5	3.1	1.9	12	3.0	1.0	N/A
PB50	18.5	11.6	7.1	17.1	10.8	3.8	2.4	6	3.0	1.0	N/A

Available Stocked Material: ● XL Conductive

* Available on a make-to-order basis.
Note: Other ESD-safe materials available on a make-to-order basis. Please call for information.

All specifications are approximate and subject to change without notice.