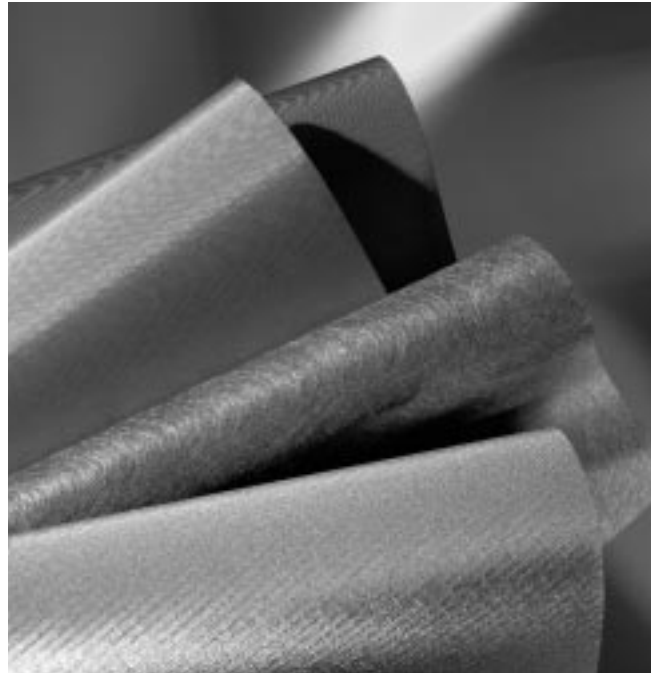




Conductive Fabric

Electron® metallized fabric combines highly conductive metals with lightweight fabric to meet a diverse range of EMI/RFI shielding requirements. Manufactured with Laird Technologies' patented technology, Electron metallized fabric is available in various woven and non-woven substrate configurations. Whether used as an architectural shielding product to shield complete rooms, or as the shielding material in EMI gaskets, tapes, and shield laminates, Electron fabrics provide a highly effective shielding system that is cost-effective and easily applied.

Laird Technologies uses a patented technology for applying thin metal coatings of copper or nickel to woven and nonwoven fabrics. As a result, Electron metallized materials have the flexibility, conformability and breathability of a fabric with the electrical properties of a metal. Because the manufacturing process does not use an electric potential, the fabric receives a uniform coating of metal on the individual fibers and excellent plating at the fiber crossover points. This means low surface and through resistivity and excellent shielding effectiveness.



Electron® Products Data Summary

	Product No.	Nominal Thickness Inches (mm)	Surface Resistivity ¹ (Ohms/square) (ASTM F390)	Shielding ² at 100 MHz/1GHz (dB) (Mil-Std 285)	Tensile Strength ³ CD/MD ⁴ (lb/in)	Air Flow ³ (ft ³ /min/ft ²)	Weight (oz/yd ²) (LT 500)	Max. Short Duration Temperature (°C)
Cu Polyester Nonwoven	3027-106	0.016 (0.4)	≤ 0.1	80/100	7.5/18.5	690	1.5 – 2.3	210
Ni/Cu Polyester Nonwoven	3027-217	0.016 (0.4)	≤ 0.07	100/100	7.5/18.5	690	1.8 – 3.0	210
Ni/Cu Polyester Nonwoven UL94 VTM-0	3027-235	0.016 (0.4)	≤ 0.07	100/100	7.5/18.5	690	13 [†]	210
Ni/Cu Polyester Taffeta	3035-213*	0.006 (0.2)	≤ 0.07	80/70	50/75	66	2.2 – 3.3	210
Ni/Cu Polyester Taffeta UL94 V0	3035-216*	0.008 (0.2)	≤ 0.07	80/70	19/81	NA	7.0 – 9.0	100
Ni/Cu Polyester Ripstop	3055-233*	0.007 (0.2)	≤ 0.07	90/80	60/65	68	2.2 – 3.3	210
Ni/Cu Polyester Mesh	3070-500	0.008 (0.2)	≤ 0.07	53/48	64/24	NA	1.3 – 2.3	210
Cu Nylon Ripstop	3050-113	0.005 (0.1)	≤ 0.1	70/70	52/56	97	1.4 – 1.9	200
Ni/Cu Nylon Ripstop	3050-226*	0.005 (0.1)	≤ 0.07	70/70	52/56	97	1.4 – 1.9	200
Ni/Cu Nylon Ripstop UL94 V0	3050-517*	0.008 (0.2)	≤ 0.07	85/75	52/56	NA	5.5 – 7.0	100
Cu Polyester Ripstop	3055-121	0.007 (0.2)	≤ 0.1	90/80	60/65	68	2.0 – 2.7	210

NA = Not Applicable

¹ Product Specifications

² Measured per MIL STD 285, Typical values

³ Typical values for unplated fabric.

⁴ CD = cross machine direction, MD = machine direction

[†] Nominal Value

* Note: Optional anti-fray coating on Ni/Cu woven material.

All dimensions shown are in inches (millimeters) unless otherwise specified.



Conductive Fabric Descriptions and Applications

For specific material properties, see Data Summary Chart (page 25)

Product No.	Material	Description	Application
3027-106	Cu Polyester Nonwoven	Combines a highly conductive metal with the light weight, flexibility, and breathability of a nonwoven. Offers excellent surface conductivity, shielding effectiveness, and reflectivity.	Protects against EMI/RFI and ESD where weatherability is not a concern: architectural gaskets, tapes, shielding laminates, and grounding.
3027-217	Ni/Cu Polyester Nonwoven	The base layer is the highly conductive copper, with an outer layer of nickel for corrosion resistance. Combines the properties of these metals with the light weight, flexibility and breathability of a nonwoven material. Offers excellent surface conductivity, shielding effectiveness, and corrosion resistance.	Protects against EMI/RFI and ESD for a variety of applications and environments: architectural shielding, gaskets, tapes, shielding materials and ribbon.
3027-235	Ni/Cu Polyester Nonwoven UL94 VTM-0	Combines highly conductive copper and corrosion resistant nickel with the lightweight, flexibility and breathability of a nonwoven. Offers excellent surface conductivity, shielding effectiveness and corrosion resistance. This product achieves the UL94 VTM-0 flammability rating.	Protects against EMI/RFI and ESD for a variety of applications and environments: architectural shielding, gaskets, tapes, shielding laminates, and grounding.
3035-213*	Ni/Cu Polyester Taffeta	Combines highly conductive copper and corrosion resistant nickel with the light weight, flexibility, conformability, strength and uniform appearance of a woven. Nickel/Copper Polyester Taffeta offers excellent surface conductivity, shielding effectiveness, and reflectivity.	Protects against EMI/RFI for a variety of applications and environments: enclosures, curtains, gaskets, cable wrap, tapes, shielding laminates, and grounding.
3035-216*	Ni/Cu Polyester Taffeta UL94 V0	Combines highly conductive copper and corrosion resistant nickel with the light weight, flexibility, conformability, strength and uniform appearance of a woven. Nickel/Copper Polyester Taffeta offers excellent surface conductivity shielding effectiveness, and reflectivity.	Protects against EMI/RFI for a variety of applications and environments: enclosures, curtains, gaskets, cable wrap, tapes, shielding laminates, and grounding.
3055-233*	Ni/Cu Polyester Ripstop	The base layer is the highly conductive copper, with an outer layer of nickel for corrosion resistance. Combines the properties of these metals with the light weight, drapability, strength, and attractive appearance of a Polyester Ripstop. Nickel/Copper Polyester Ripstop offers excellent surface conductivity, shielding effectiveness, and corrosion resistance.	Protects against EMI/RFI and ESD for a variety of applications and environments: enclosures, cables, gaskets, tapes, and grounding.
3070-500	Ni/Cu Polyester Mesh	Combines highly conductive copper and corrosion resistant nickel with the light weight, flexibility, conformability, breathability and uniform appearance of a knitted mesh. Mesh offers excellent surface conductivity, shielding effectiveness, and reflectivity for a variety of applications.	Protects against EMI/RFI for a variety of applications and environments: enclosures, curtains, gaskets, cable wrap, tapes, shielding laminates, and grounding.
3050-113	Cu Nylon Ripstop	This technology combines a highly conductive metal with the light weight, drapability, strength, flexibility, conformability, and attractive appearance of a nylon ripstop. Copper Nylon Ripstop offers excellent surface conductivity, shielding effectiveness, and reflectivity.	Protects against EMI/RFI where weatherability is not a concern: enclosures, curtains, tapes, shielded laminates, infrared camouflage, and radar reflector.
3050-226*	Ni/Cu Nylon Ripstop	This technology combines highly conductive copper and corrosion resistant nickel with the lightweight, drapability, strength, flexibility, conformability, and attractive appearance of a Nylon Ripstop. Nickel/Copper Nylon Ripstop offers excellent surface conductivity, shielding effectiveness, and reflectivity.	Protects against EMI/RFI: enclosures, curtains, gaskets, tapes, shielded laminates, infrared camouflage, and radar reflector.
3050-517*	Ni/Cu Nylon Ripstop UL94 V0	This technology combines highly conductive copper and corrosive resistant nickel with the drapability, strength, flexibility, and attractive appearance of a Nylon Ripstop fabric. Excellent surface conductivity, shielding effectiveness, and UL94 V0 rating.	Protects against EMI/RFI: enclosures, cables, tapes, and grounding.
3055-121	Cu Polyester Ripstop	This technology combines a highly conductive metal with the lightweight drapability and attractive appearance of a Polyester Ripstop. Copper Polyester Ripstop offers excellent surface conductivity and shielding effectiveness.	Protects against EMI/RFI and ESD: enclosures, cables, tapes, grounding, infrared camouflage, and radar reflector.

* Note: Optional anti-fray coating on Ni/Cu woven material.

All dimensions shown are in inches (millimeters) unless otherwise specified.

