

EMI/RFI-SHIELDING LAMINATES



ORION specializes in designing unique laminated shields and applying selective die cutting techniques for cost effective solutions to a variety of shielding problems. With our extensive product development and manufacturing expertise we have developed a complete range of foil laminates.

Advantages of Laminates

- Lower cost than spray shielding
- Effective
- Recyclability
- Lower tooling cost
- Insulating capabilities
- Scratch resistant

ORION's EM series of laminates are UL listed.

Reference:

- EM-X300 Series
- EM-X700 Series

ORION holds two patents for EMI shielding designs.

Common materials include:



ADHESIVES & FOILS

Adhesive	Thk.	Material	Standard Width
Acrylic	0.001"	Copper	0.0014 - 0.008"
	0.002"	Tin Plated Copper	0.0014 - 0.008"
	0.005"	Aluminum	0.002 - 0.015"
Rubber	0.0034"	Stainless Steel	0.002 - 0.015"

INSULATING SUBSTRATES

Material	Trade Name	Thickness	UL-Flame Rating	Max. Width
Polyester	Mylar®	0.001 - 0.014"	94VTM-2	72"
Polycarbonate	Lexan®	0.005 - 0.062"	94V-2 to 94V-0	48"
Polypropylene	Formex®/Statex®	0.010 - 0.062"	94VTM-0 to 94V-0	24"
Polyvinylchloride		0.010 - 0.040"	94HB to 94V-0	54"
Polyamide	Nomex®	0.005 - 0.030"	94V-0	36"
PBTP	Valox®	0.003 - 0.030"	94VTM-0 to 94V-0	48"
Polyimide	Kapton®	0.001 - 0.005"	94V - 0	36"

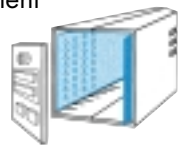
PCB-Shields



A copper foil/polyester laminate was selectively die cut removing the copper foil from all edges of the piece. The laminate was then successfully inserted as a shield between two printed circuit boards. This prevented any interference between the boards.

Instrument Housing Shields

ORION developed a fold-up and drop in place shield to be used for instrument housings. Innovative die cutting techniques are used to expose multiple grounding points.



Laminated Shield

This laminated shield folds up to form an enclosed box for video monitor applications.



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