



EMI-SHIELD AL5 EMI/RFI Foil Shielding – Double Layer

EMI Foil Shielding With or Without PSA



EMI-SHIELD AL5 is a 0.005" (5 mil) (0.127mm) thick aluminum foil for use as an EMI/RFI shield against electromagnetic interference. The foils are easy to work with and offer good shielding effectiveness across a wide range of frequencies, tested from 9 KHz to 40 GHz, shielding against unwanted signals in or out of rooms and buildings. Ideal for ICD 705 Tempest shielding.

AL5 may be used to form shielded enclosures of almost any size or shape, with primary use in construction with low-cost shielded rooms, shielded anechoic chambers and other shielded test rooms.

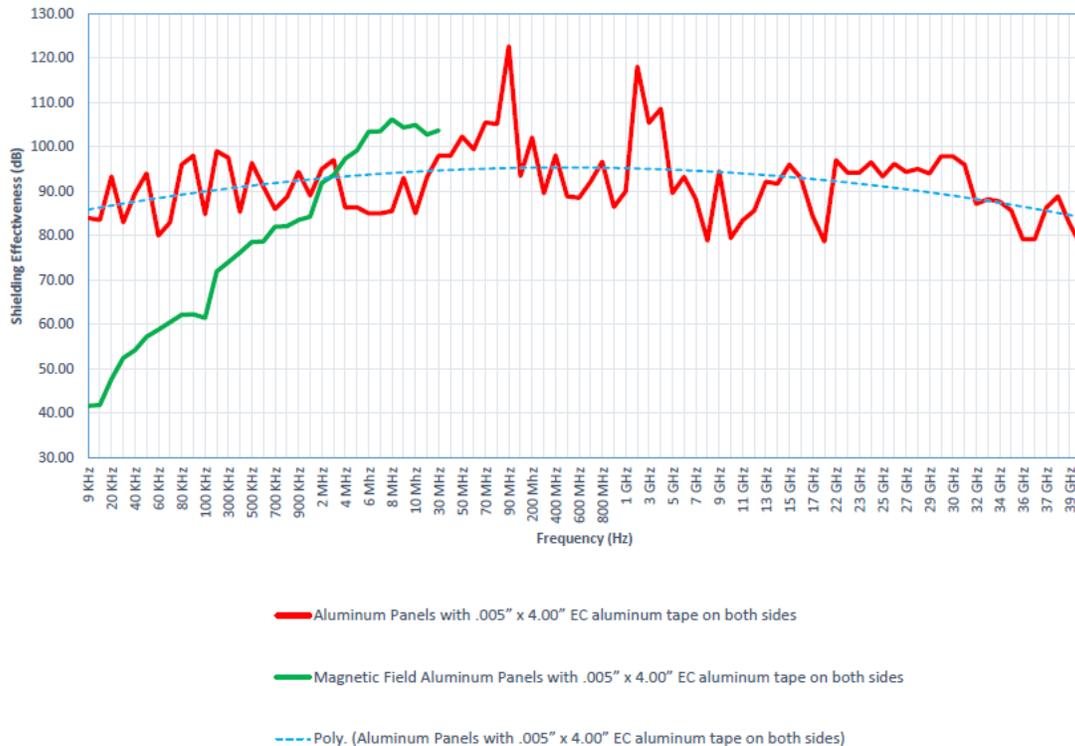
US Foils products are unique as they come with 2 mil Pressure Sensitive Adhesive (PSA) as the bonding mechanism. PSA offers a no-mess, no odor simple method of application method for applying the AL5 to substrates. AL5 is also available without PSA backing (bare foil up to 50" wide x 150' long rolls).

AL5 can be used as a single layer or double layer, see shielding performance below. Staggered or offset overlap of seams are recommended for double layer application.

AL5 (2 Layers) TYPICAL SHIELDING EFFECTIVENESS	
Two Layers of AL5 (10 mil Total Aluminum Thickness)	
(Insertion Loss per IEEE-299 : 2006)	
FREQUENCY	dB
10 KHz, Magnetic Field	≥45
100 KHz, Magnetic Field	≥62
200 KHz, Magnetic Field	≥65
1 MHz, Magnetic Field	≥82
10 KHz, Electrical Field	≥80
200 KHz, Electrical Field	≥85
1 MHz, Electrical Field	≥90
10 MHz, Electrical Field	≥90
400 MHz, Plane Wave	≥90
1 GHz Plane Wave	≥90
10 GHz Plane Wave	≥85
18 GHz, Plane Wave	≥85
40 GHz, Plane Wave	≥80



AL5 Double Layer Shielding Effectiveness (As Installed) Tested per IEEE-299 : 2006



AL5 EMI foil shielding is applied like wallpaper, covering all surfaces: floor, walls and ceiling. Other than normal cleanliness, and dust free, no special preparation is required. Raw sheetrock will be required to be primed if you are using the AL5 with PSA. The foil should be glued in-place or ordered with a Pressure Sensitive Adhesive (PSA).

AL5 INSTALLATION OPTIONS:

Good SE Performance: AL5 1st layer is butt jointed and then seam taped with 4" wide EC AL5 Tape. Then 2nd layer is offset (typically 2') and then butt jointed and seam taped with 4" wide EC AL5 Tape (see graph above).

Better SE Performance: Same as above, but each layer is overlapped by a minimum of 1" and then seam taped with 4" wide EC AL5 Tape.

ORDERING INFORMATION

EMI-SHIELD AL5 is available in standard widths of 6", 12", 24", 48" & 50" and lengths of 150 Ft with other dimensions available on special order. Either with or without PSA.

AL5 Tape is also available in electrically conductive PSA backing in 1", 2", 3", 4" & 6" x 180 Ft rolls.

Note: Standard AL5, 2 mil PSA, does not stick to: unsealed concrete, cinder block, unprimed sheet rock, unprimed particle board and other unprimed rough or porous surfaces.



Wear correct gloves when installing the foil, the edge is like a razor blade

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