



4700 - Amucor foil and tape



Many EMI problems can be solved easily by the use of Amucor foil or tape, a commonly used material. Amucor foil and tape can be produced with or without (conductive) self-adhesive and an optional insulation layer.

Amucor tape can be cut to any width starting at 3 mm and can be delivered from stock. The most commonly used width is 25 mm; the standard roll length is 16.5 meters.

If coverage of large surfaces is needed, it is usually best to use tape with a conductive self-adhesive in combination with foil. This solution is much cheaper than only using tape.

Amucor foil can also be delivered as die-cut, according to the customer's drawing, on a strip or in pieces (stickers), with optional self-adhesive.

Applications

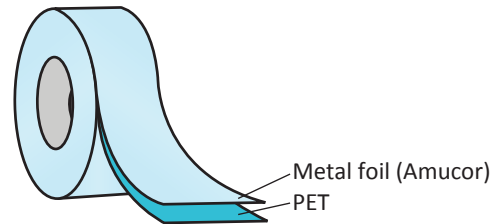
- EMI shielding of plastic enclosure parts (EMI/RFI-shielding tape/gasket)
- Shielding all non-conductive materials
- Ground plane
- Antistatic floor (ESD floor)
- Electrical connection between surfaces (sheets/foils)
- Die-cuts
- Shielding in housings and Faraday cages
- Temporary shielding during tests
- Mounting transparent foils, windows for EMI/RFI shielding
- Cable shielding (wrapped around the cable)
- Temporary shielding during emission and immunity tests

Options

- Fire-retardant version
- With (conductive) self-adhesive backing
- With insulation layer
- Die-cutting to any shape according to CAD drawing

Amucor foil (4701)

The reinforced Amucor foil is both cost effective and heat resistant. This thin foil can be applied easily to any surface and any shape of housing. We can also supply the foil, which is 0.04 mm thick, in a die-cut version.

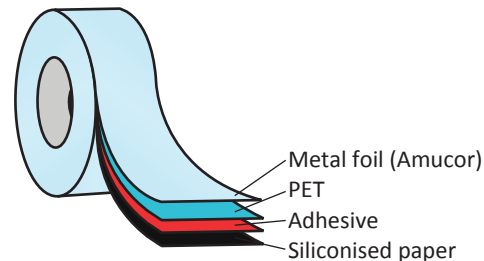


Advantages

- Cost-effective
- Easily follows the contours of the housing
- Fire-retardant
- Extremely strong
- Corrosion free

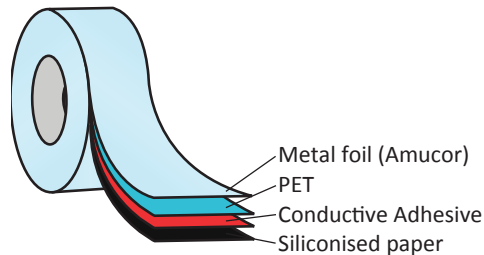
Amucor tape with standard adhesive (4702)

This is an Amucor tape (type of aluminium) that is 11 microns thick, reinforced with polyester (23 microns thick) and with an acrylic adhesive on the back.



Amucor tape with conductive adhesive (4703)

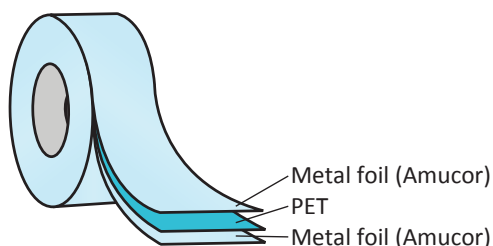
This is an Amucor tape (type of aluminium) that is 11 microns thick, reinforced with polyester (23 microns thick) and a conductive adhesive on the back.



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Amucor foil with PET in the middle (4716)

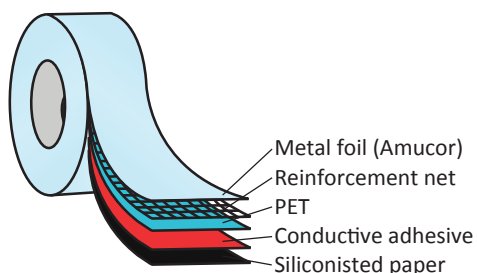
Amucor foil + PET film + Amucor foil. This product consists of two layers of 11-micron thick Amucor (type of aluminium) with a 23-micron layer of polyester in between. This material is extremely strong.



Amucor foil with a reinforcement net (4706)

Amucor foil can also be produced with a strengthening reinforcement net. Because the reinforcement net makes this material so strong, it can be produced in a very large width of 3100 mm. This material is designed to cover walls and floors for protection against unwanted radio frequencies (RF). The material can also be used to quickly create a shielded room, for example by covering the walls of a wooden box.

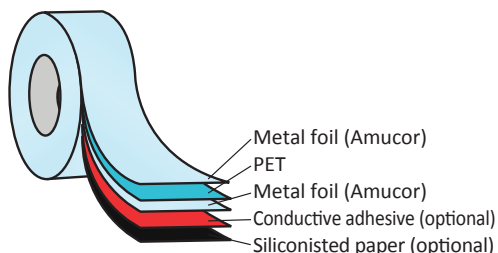
Amucor foil with a reinforcement net can be produced as a foil (4706) without self-adhesive but is also available as tape (4707), with standard adhesive or as tape (4708) with conductive adhesive.



For more information:

[4706 - Amucor foil with a reinforcement net](#)

Amucor tape with PET in the middle and conductive adhesive (4718)



Sandwich tape consisting of two layers of Amucor (11 microns thick) with polyester (23 microns thick) in between and a conductive adhesive on the back.

Shielding performance

In the table below you will find the shielding characteristics of Amucor foil.

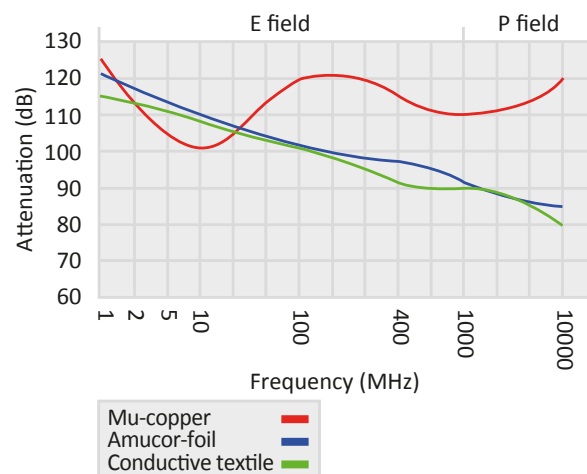
There are many factors that influence the actual effectiveness of an EMI/RFI-shielding tape after it has been applied, such as type and thickness of the foil, type of adhesive, closeness of contact, smoothness of the application surface, strength and frequency of the EMI/RFI signal, etc. Still, a nominal attenuation value can be determined using standard tests and fixtures.

For Amucor tape, typical shielding effectiveness (far field) is in the range of 60dB to 80dB (10 KHz to 20 GHz).

For more specifications see the table and graph below.

Field	Frequency	Amucor foil (0.04 mm thick)
E	1 MHz	121 dB
E	10 MHz	110 dB
E	100 MHz	103 dB
E	400 MHz	98 dB
P	1 GHz	92 dB
P	10 GHz	85 dB

These values are measured under laboratory conditions. In other situations results may differ; please read our [Guarantee](#).






EMI/RFI-shielding tapes, attenuation graph



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Technical specification and part numbers

Part number (Foil without adhesive)	4701	4716	4706
Part number (Tape with standard adhesive)	4702	4717	4707
Part number (Tape with conductive adhesive)	4703	4718	4708
Part number (Foil with insulation layer (UL94V-0) 0.15 mm (white))	4704	4719	4709
Part number (Foil with insulation layer (UL94V-0) 0.22 mm (black))	4705	4720	4710
Construction			
Foil material	Amucor	Amucor and PET	Amucor with a reinforcement net
Surface	bright	bright	bright
Foil thickness	0.023 mm	0.35 mm	-
Total thickness	0.048 mm	0.3725 mm	-
Adhesive	Synthetic conductive resin	Synthetic conductive resin	-
Adhesive performance	4.5 N/cm	4.5 N/cm	-
Tensile strength	-	-	-
Temperature resistance	-	-	-
El. resistance through adhesive	0.003 Ohm	0.003 Ohm	0.003 Ohm
For tape, standard roll widths (mm) *	10, 25, 50, 100	10, 25, 50, 100	10, 25, 50, 100
For foil, standard foil widths (mm) *	1100	1100	3100
Roll lengths*	16.5 m	16.5 m	100 m

These values are measured under laboratory conditions.
In other situations results may differ; please read our [Guarantee](#).

* Other dimensions on request

How to order

When you order 4700 series - Amucor foil and tape please specify the partnumber as follow:

Part number	Width (mm)	Length (meters)
4701	50	16.5
For part numbers see table above	Specify the width of the tape in mm	Specify the length of the tape in meters