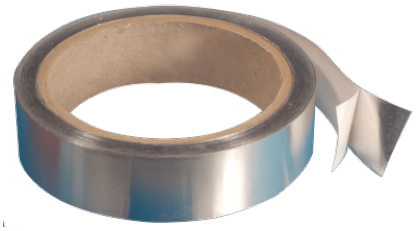
4701 - Amucor foil and tape

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

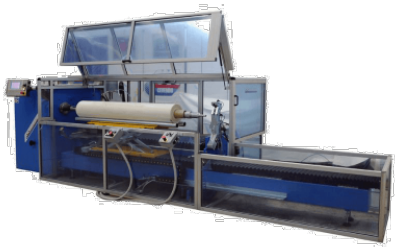
Amucor tape can be cut to any width starting at 3 mm and can be delivered from stock. The most commonly used width is 25 mm. Standard roll length is 16.5 meters.

If coverage of large surfaces is needed, it would most likely be better to use tape with a conductive self-adhesive in combination with foil. This solution is much cheaper.

Amucor foil can also be deliver as die-cut, according to your drawing, on strip or in pieces (as a sticker), with optional self-adhesive.



Amucor foil for EMI/RFI shielding



We can cut all our EMI/RFI shielding tapes to any specific width

With our automated CNC cutting system, we can cutAmucor foil in large quantities and according to your CAD drawing

Applications

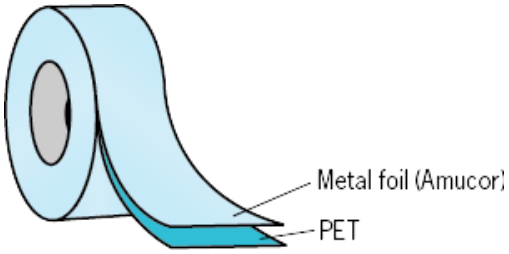
- EMI shielding of plastic enclosure parts (EMI/RFI shielding tape/gasket)
- Shielding all non-conductive materials
- Ground plane
- Antistatic floor (ESD floor)
- Electrical connection between surfaces (sheets / foils)
- Die-cuts
- Shielding in housings and Faraday cages
- Temporary shielding during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

Options

- Fire-retardant version
- With (conductive) self-adhesive backing
- With insulation layer
- Die-cutting in 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 in a die-cut version. The foil is 0.04 mm thick.



4701 - Amucor foil technical drawing

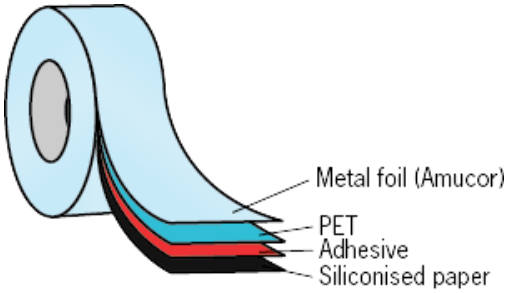
Benefits

- Cost-effective
- Follows the contours of your housing easily
- Fire-retardant
- Extremely strong
- Corrosion free

Amucor tape with standard adhesive (4702)

4701 - Amucor foil and tape

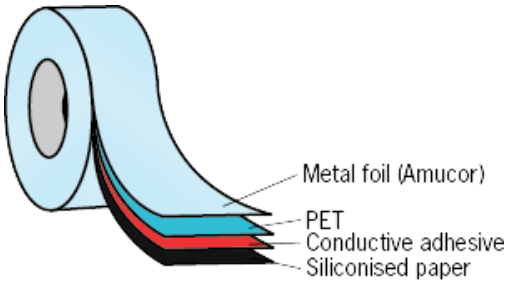
This is an Amucor tape (type of aluminium) of 11 micron thick , reinforced with polyester of 23 micron thick and an acrylic adhesive on the back.



4702 - Amucor tape with standard adhesive technical drawing

Amucor tape with conductive adhesive (4703)

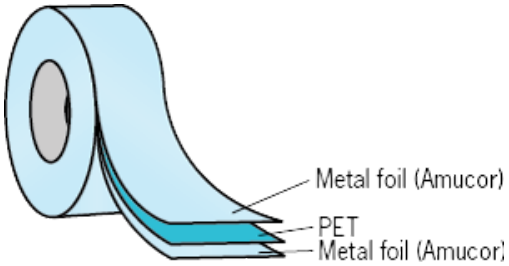
This is an Amucor tape(type of aluminium) of 11 micron thick, reinforced with polyester of 23 micron thick and a conductive adhesive on the back.



4703 - Amucor tape with conductive adhesive technical drawing

Amucor foil with PET in the middle (4716)

Amucor foil + PET film + Amucor foil. 2 layers of 11 micron thick Amucor(type of aluminium) with 23 microns of polyester inside. This material is extremely strong.



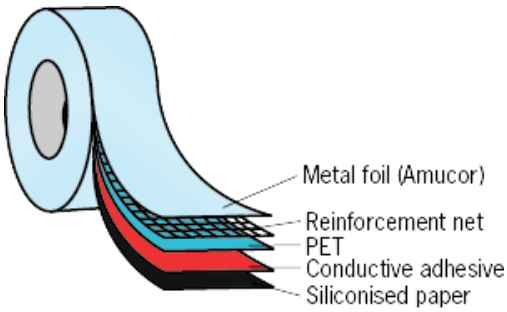
4716 - Amucor tape with PET in the middle technical drawing

Amucor foil with a reinforcement net (4706)

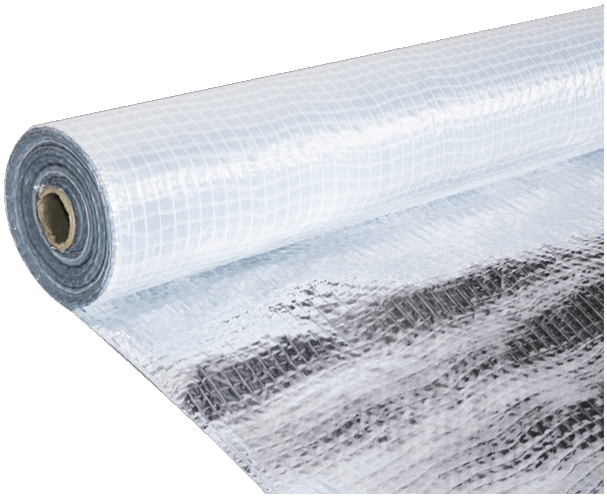
Amucor foil can also be produced with a strengthening reinforcement net. Because the material with the reinforcement net is so strong, it can be produced in a very large width of 3100 mm. This material is designed to cover walls and floord for protection against unwanted radio frequencies (RF). The material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

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

4701 - Amucor foil and tape



4706 - Amucor foil with reinforcement net technical drawing



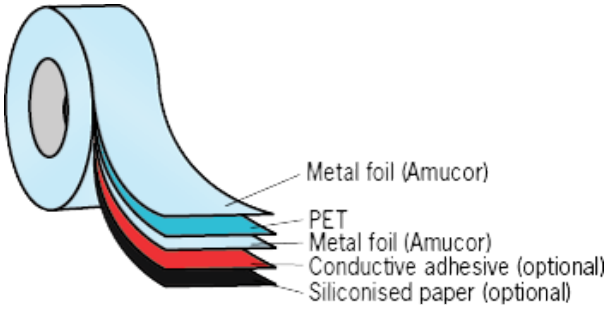
4706 - Amucor foil with reinforcement net example image

For more information:

4706 - Amucor foil with reinforcement net webpage

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

Sandwich tape with 2 layers of amucor of 11 micron thick with polyester of 23 micron thick in between and a conductive adhesive on the back.



4718 - Amucor tape with PET in the middle and conductive adhesive technical drawing

Shielding performance

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

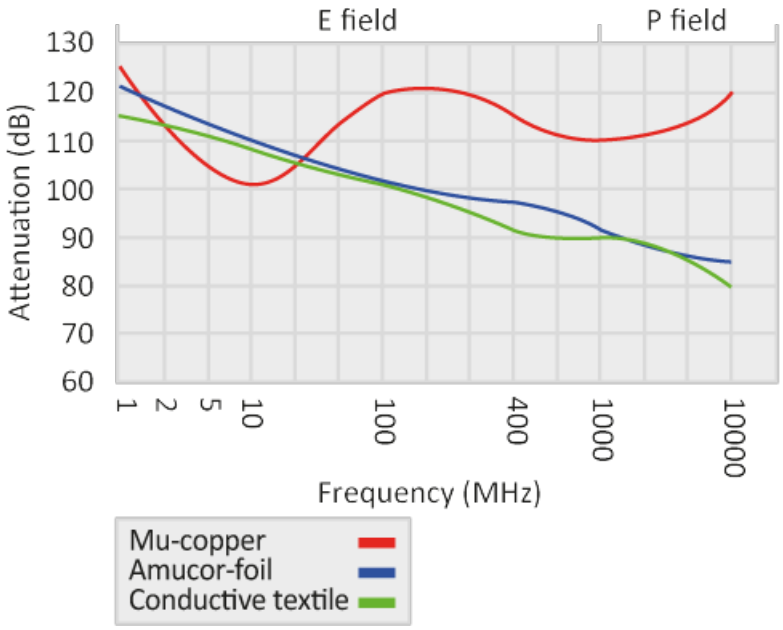
There are many factors that influence the true effectiveness of a EMI/RFI shielding tape when applied, such as type and thickness of foil, type of adhesive, closeness of contact, smoothness of application surface, strength and frequency of the EMI/RFI signal, etc. Still, an attenuation value can be determined 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 table and graph below.

4701 - Amucor foil and tape

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 your situation results may differ, please read our Guarantee.



EMI / RFI shielding tapes attenuation graph

Technical specification and part numbers

Part number (As 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 (As foil, with insulation layer (UL94V-0) 0.15 mm (white))	4704	4719	4709
Part number (As 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
When tape, standard roll widths (mm) *	10, 25, 50, 100	10, 25, 50, 100	10, 25, 50, 100
When 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 your situation results may differ, please read our Guarantee.