Flat Copper Tape

Ampetronic flat copper tape (cable) is the default choice when installing loop cable under floor coverings such as carpet, wood, laminate, tiles or linoleum. The cable will not be visible under most floor coverings and is generally secured to the floor with Printed Warning Tape that alerts tradespeople, such as carpet fitters to its presence.

The tape can be attached to feeder cables using crimps or soldering and plastic extrusion is available to cover it in high traffic areas. There are three sizes of flat cable available depending on application. The insulating layer of the cable is bonded to the copper for better handling.

Features

- **Quick and simple to install**
- **Discreet installation**
- **Sealed in adhesive backed film to avoid grounding**
- **Easy to fold around corners**
- **A more electrically efficient conductor than standard round cable**

Applications include:

- **Under floor finish - Perimeter loops**
- **Under floor finish - Multiloops / Phased Arrays**
- **Can be fitted under most coverings with no effect on the magnetic field.**
    - **- Carpet**
    - **- Vinyl**
    - **- Linoleum**
    - **- Wood**
    - **- Laminate**
    - **- Ceramic & Porcelain Tiles**
    - **- On top of metal decking (requires high power driver and appropriate loop design)**

INSULATION PROPERTIES

Composition:	Polyester Film
Thickness:	0.050 mm
Dielectric Strength:	5,000 v
Colour:	Colourless
Heat Class:	B (Temperature Resistance up to 130°C)
Insulation Breakdown Voltage:	5,000 Volts
Adhesive:	Polyacrylate

CONDUCTOR PROPERTIES

Composition:	Cu min 99.90%
Density:	8.9g/cm³
Coefficient of Thermal Expansion:	16.8 X 10-6 / K at 25 -100°C
Electrical Conductivity:	5.8 – 5.89 S/m at 20°C (soft)
Thermal Conductivity:	385.2 W / Km at 100°C
Modulus of Elasticity:	117.7 kN / mm²
Tensile Strength:	250.0 N / cm
Elongation:	10.0 – 40.0%
Hardness:	40.0 – 60.0 HV (VPN)

TECHNICAL PROPERTIES

Part No.	Width	Thickness	(CSA)	Current	Length	Weight
ACFB50U10	10mm	0.1mm	1.0mm²	11A Max	50m	0.52kg
ACFB50U18	18mm	0.1mm	1.8mm²	18A Max	50m	0.96kg
ACFB100U18	18mm	0.1mm	1.8mm²	18A Max	100m	1.89Kg
ACFB50U20	20mm	0.15mm	3.0mm²	22A Max	50m	1.5kg
ACFB100U20	20mm	0.15mm	3.0mm²	22A Max	100m	2.84kg

Safety warning

Ampetronic Flat Cable is not suitable for connection to AC power supplies or other high voltage systems. To do so could result in injury or death.

For material data safety MSDS sheet please request and see document UP10027.

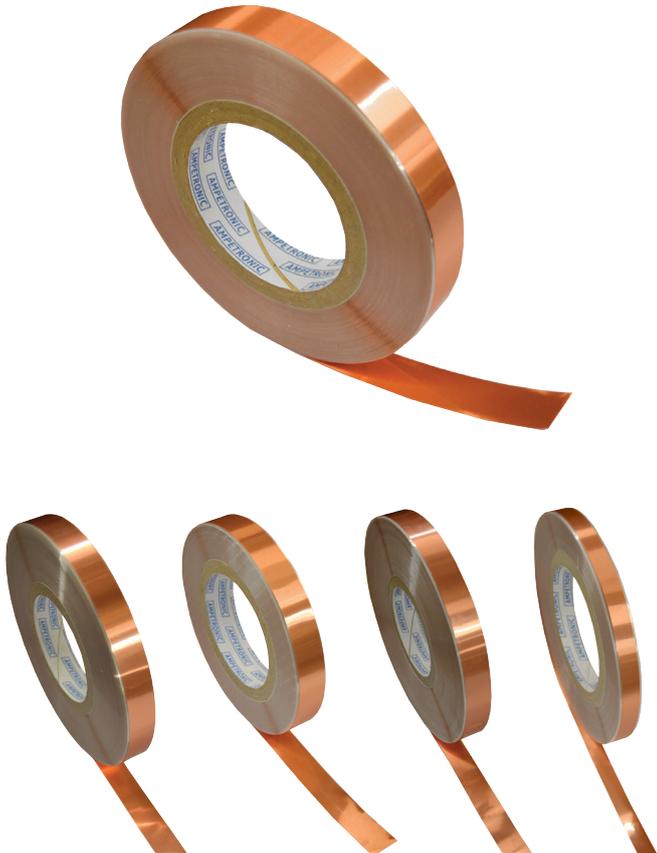# Copper Tape Information

Standards Compliance

Ampetronic Flat Copper Tape is UL recognised for fire retardancy and uses RoHS compliant, halogen free, non-toxic polyester insulation.

Installation note

When installed, the Ampetronic flat copper tape is not normally visible through carpets and floor coverings. However, if used under particularly thin floor coverings, the line of the tape may be slightly visible. The installer is responsible for confirming the compatibility of all materials before they are used in any project.

Warranty Information

Copper Tape and Printed Warning Tape are warranted against defects in manufacture present at the time of supply. The warranty does not cover installation errors or mechanical damage to the products.