

Knitted Wire Mesh Tapes



Description:

Knitex[®] wire mesh EMI shielding tapes are constructed from knitting a fine wire into a double thickness layflat stocking and are available in the widest range of materials and widths available on the market (see table below). The tape is highly flexible, light, corrosion and high temperature resistant but also stronger and more resistant to abrasion and physical damage than other tape materials. Tapes are available in widths from 6mm wide up to 200mm wide and can be produced with a crimp to give greater thickness than standard.

Application

Mesh tapes are primarily used for shielding electrical and electronic cable assemblies, for cable jointing, grounding, static discharge and within connector assemblies. Normally the mesh should be applied to a cable with a 50% overlap to provide a 4 layer shield and terminated at each end by means of clamping, soldering or spot welding.

Materials of Construction - Wires

Knitex EMI shielding materials can be manufactured from any metal that can be drawn into a filament. However the majority of shielding requirements can be satisfied by using the materials listed in the table below.

Material	Wire Diameter	Material Ref.
Monel (BS 3075-NA13)	0.11mm	MO
Tin Plated Copper Clad Steel (SN-FE-CU)	0.11mm	SN-FE-CU
Stainless Steel (AISI 304)	0.11mm	SS
Tinned Copper (BS 4109 with 0.7-1 micron tin plate)	0.11mm	TC
Silver Clad Copper (BS 4190 with 0.7-1 micron silver cladding)	0.12mm	SCC
Nickel Plated Copper	0.15mm	NI-CU
Aluminium (ALMG5)	0.14mm	AL
Copper (BS 4109)	0.12mm	CO

Other materials are available to special order such as Phosphor Bronze and Brass.

Knitted Wire Gaskets

Knitted Wire Mesh Tapes



Shielding Effectiveness

Knitex wire mesh tapes in optimum conditions will provide excellent shielding effectiveness, typical figures shown below:

Material	H-Field 100kHz	E-Field 10MHz
Monel (BS 3075-NA13)	-	65 dB
Tin Plated Copper Clad Steel (SN-FE-CU)	45 dB	60 dB

It should be noted that these figures can only be a guide as each application is unique and the shielding effectiveness of the tape should be considered as part of the system as a whole.

Additional Information

Samples are available generally free of charge (please contact the sales department). Delivery lead times are quantity dependant but emergency deliveries can be organised from stock or within a few days.

Ordering

To order, simply state the quantity required, part number and if you have any special roll length or packaging requirements. Use the following table and the material table and the previous page to create the part number.

Width	Part Number
6mm	9002 / Wire Diameter / Material Reference / Nat @ 6mm wide
13mm	9022 / Wire Diameter / Material Reference / Nat @ 13mm wide
25mm	9022 / Wire Diameter / Material Reference / Nat @ 25mm wide
38mm	9028 / Wire Diameter / Material Reference / Nat @ 38mm wide
50mm	9028 / Wire Diameter / Material Reference / Nat @ 50mm wide
75mm	9001 / Wire Diameter / Material Reference / Nat @ 75mm wide
100mm	9001 / Wire Diameter / Material Reference / Nat @ 100mm wide
150mm	9029 / Wire Diameter / Material Reference / Nat @ 150mm wide
175mm	9044 / Wire Diameter / Material Reference / Nat @ 175mm wide
200mm	9044 / Wire Diameter / Material Reference / Nat @ 200mm wide

Example of how to order a standard Knitex wire mesh tape:

9001 / 0.11 / TC / Nat @ 75mm wide = 75mm wide mesh tape made from tinned copper wire

Quality Assurance

KnitMesh Technologies® is accredited to:

ISO9001:2008, ISO14001:2004, OHSAS18001:2007, PAS 99:2006 and ISO/TS 16949:2009



Customer Support

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