

Electrical Heating Textile

Features:

CMY

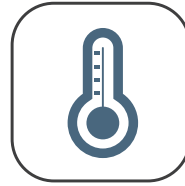
- Patented technology



- V Reach and V RoHS compliant



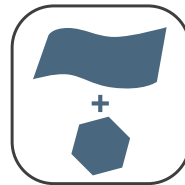
- SGS test certified toughness



- Even and stable heating

**OEM
ODM**

- ODM/OEM welcome



- Flexibility to cover uneven objects



- Customizable specifications
(fabric width up to 70cm)



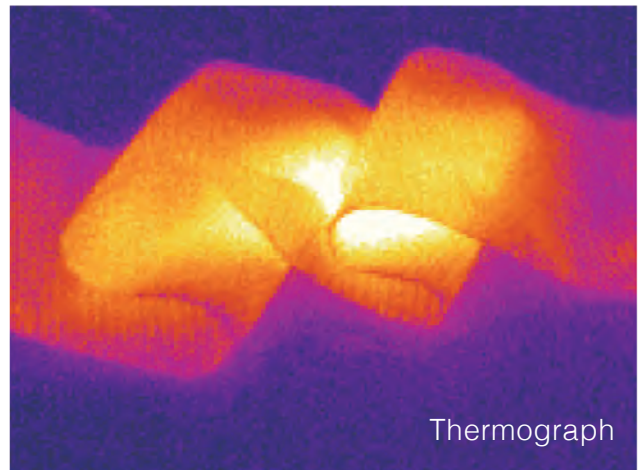
- Flame retardant and heat resistant



- Waterproof varieties available



- Excellent Breathability



Patents & Awards

- ★ Conductive yarn capable of withstanding dyeing, finishing and washing
Issued patents:
TW M371733
CN 201485574U
Pending application:
US 12/ 787, 378
- ★ Flexible heating element
Pending applications:
TW 099146482
CN 201120008487.x
- ★ 2014 TAITRONICS (Taiwan), Technology Innovation Awards – The Quality Award



Application



Wearable Heating



Automotive industry



Healthcare



Architecture



Agriculture

Characteristics Conductive Metal Yarn (CMY) Technology

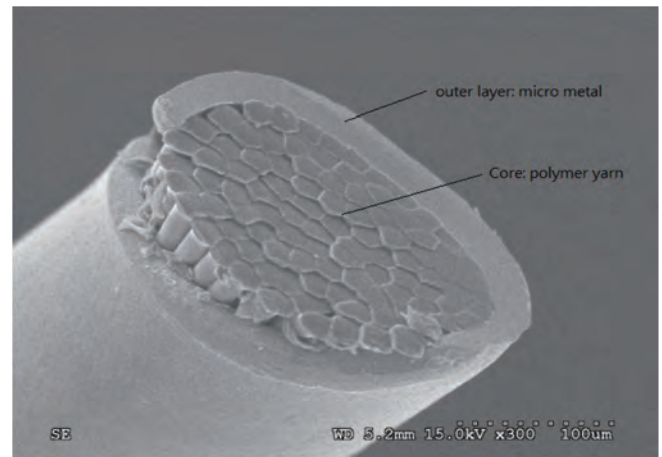
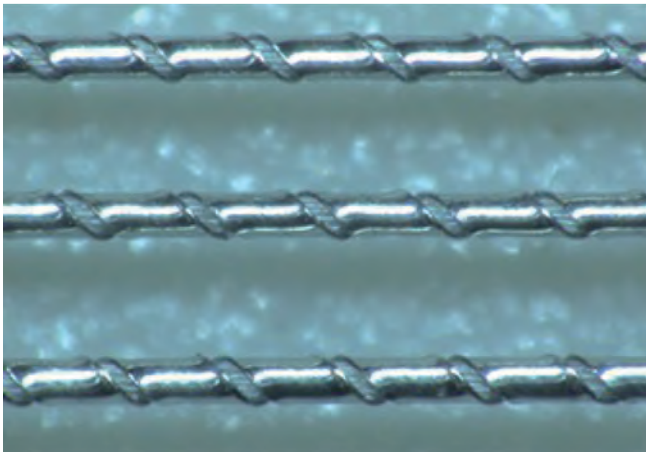
Features:

- Our specialized production technology:
 - Can simultaneously manufacture up to eight strands of CMY.
- Despite containing metal components, it possesses the characteristics of a fabric that is both flexible and resilient to physical wear.
- Can be as fine as 0.27 mm in diameter.
- OEM/ODM requests welcome.
- Can use almost any metal alloy.

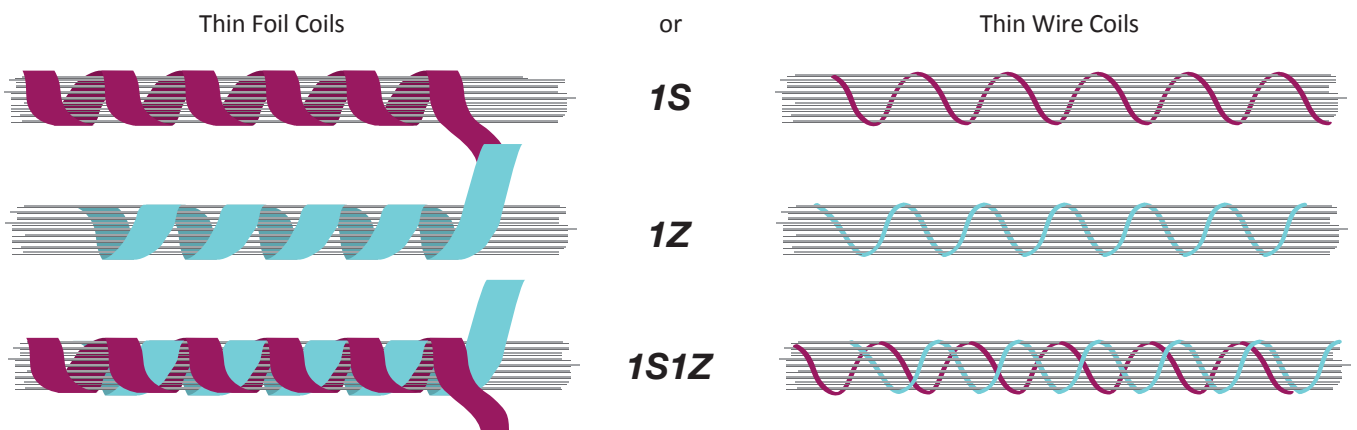


CMY Wire ►

★ Basic structure



Above picture is structure 1S which is only covered with 1 metal coil.



Introduction:

Here at LiTex we have innovated the Conductive Metal Yarn (CMY). This is a new generation electric conductive yarn with flexible qualities that allows for various applications. Such technology is achieved by essentially coiling micro thin metal foil covering over a traditional polymer yarn core (see picture above) in a helical fashion. We are at the forefront of the industry for having the ability to simultaneously manufacture up to eight strands of coiled metal covering yarn with both helical metal plating covering at the same time. This construction allows us to have a textile characteristic micro-conductive yarn that is flexible while being tough in resisting physical wear. The coiled metal covering yarn can be very fine (0.27 mm diameter in present commercial grade). Further enhancements in conductivity, strength, and thermal resistance can be made according to your needs.

Different Copper foil CMY Available for Weaving						
Item	Metal Strand Coverings	Diameter (mm)		Resistance (Ω/M)	Coating Material	
		No Coating	Coating		PU	FEP (Teflon)
010/N(K)30'*3/1S	1 Covering	0.27±0.02	0.47±0.05	~4.4		✓
010/N(K)30'*3/1S1Z	2 Coverings	0.33±0.02	0.62±0.05	~2.5	✓	✓
010/N(K)30'*3/2S2Z	4 Coverings	0.53±0.02	0.75±0.05	~1.4	✓	✓
010/N(K)30'*3/3S3Z	6 Coverings	0.55±0.02	0.84±0.05	~1	✓	✓
010/N(K)30'*3/4S4Z	8 Coverings	0.65±0.02		~0.8		

Toughness

Weaker

Stronger

- ★ Above metal coverings are made from tinned copper.
Copper nickel (CuNi) varieties coming soon.

Comparison with Other Heating Elements

Heating Element	Material Characteristics	Manufacturing Process
Carbon Fiber	Brittle, easy breakage.	Most are integrated through manual labor.
Flexible Printed Circuit Board (Heating Film)	Thin board easy to snap.	Special equipments required for production and operation cost is high.
Stainless Steel Fiber	Filament bundle easily frayed	Most are integrated through manual labor.
Conductive Metal Yarn	Coiled design offers both flexibility and strength	Made ready to use by our looms. Can be easily mass manufactured.

Sturdy connector manufacturing service available.



◀ Connector