



MADERA

HIGH CONDUCTIVE



Highly conductive and versatile embroidery thread for Smart Textile applications

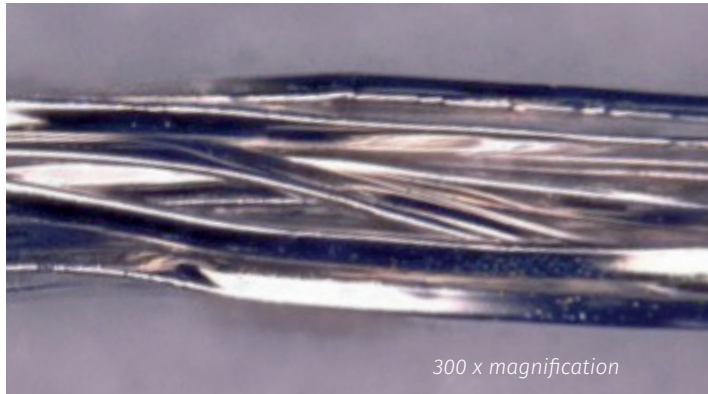
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Smart Textiles are intelligent textiles which bring technology and textiles together and where functionality is directly integrated into the garment structure.

Embroidery and sewing are great methods to incorporate sophisticated functionalities into fabrics to achieve desired performance. For this purpose MADEIRA offers a highly conductive thread (HC).

High wear resistance and excellent stability is provided thanks to a specific manufacturing process which results in a durable pure silver plating around every single filament. Silver plating of each fibre guarantees optimum conductivity which is

required especially at contact points. MADEIRA's highly conductive embroidery thread does not only offer specific technical functionality but also retains its textile characteristics such as flexibility, resilience and easy processing.



Example:



Sensor Embroidery



Sensor in moss stitch technology

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HC40 and **HC12** are skin friendly, comfortable, biocompatible, washable and therefore ideal for Smart Textile applications. Amongst all metals, silver offers the highest electrical and thermal conductivity. In addition, it has antibacterial and antistatic properties.

Applications include:

- Lighting / LEDs
- Textile based sensors and actuators
- Heating
- Flexible circuit paths

Application Sectors include:

- PPE, performance and leisure wear, home textiles
- Fashion innovation
- Medical and laboratory technology
- Work and functional wear
- Automotive and aerospace
- Telecommunication

Application possibilities and areas are limitless. MADEIRA recommends to test the thread and designs first in order to ensure technical and functional requirements are met.

HC 12

100% Polyamide (fully silver plated)
dtex 235x2

Resistance: < 100 Ω /m

100/#16

1 x 1000 m
Art. No. 4200000

SAMPLE:

1 x 150 m
Art. No. 420SMP

HC 40

100% Polyamide (fully silver plated)
dtex 117x2

Resistance: < 300 Ω /m

75/#11 - 80/#12

1 x 2500 m
Art. No. 4100000

SAMPLE:

1 x 250 m
Art. No. 410SMP



Silver plated with min. 99% pure silver /
Shieldex® Thread from Statex





For HC threads, special attention is given to care and restrictions on the washability. We would be pleased to send you the technical data sheets on request and answer further questions:
technical@madeira.de



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