

Stretchable Selective Plating Fabrics

Unique Capability Offers High Reliability with Excellent Electrical Conductivity

Innovative selective plating technology enables the creation of pattern and circuit directly onto the fabric for various types of applications and functions. The pure silver metallization guarantee ensures reliably high electrical performance on both sides of the fabric in combination with robust mechanical and wear resistance. The portfolio currently offers two types of polyamide-based fabrics: a woven parachute ripstop type and a stretchable knitted version for mechanically stressed use cases including applications such as consumer/medical/professional wearable electronics.

This new technology can lead to efficient reel-to-reel plated rolls in continuous high volume production processes, both for continuous or isolation pattern designs, all with accurate trace width.

Value Added Services are offered to support this important new capability upon customer request, such as:

- Surface treatment
- Sensor build (including die cutting, multilayer lamination, wire connection, and battery connection).
- LED implementation

FEATURES

- Silver Low electrical resistance
- High durability
- Washability
- Stretchability
- Fine pitch
- Adhesive and coating options
- RoHS/Reach compliant

BENEFITS

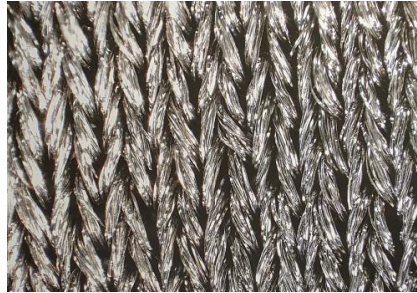
- High performance
- Long term reliability
- Antimicrobial
- Shielding
- Signal/wire pattern
- Flexible/Conformable circuit
- Thin/Lightweight

PRODUCT INFORMATION

- Standard roll size is 1300 mm width (pattern max width 1250 mm max length 820 mm)
- Available in several length on demand (minimum 10 meters)
- Pressure Sensitive Adhesive and coating option available
- VAS: sensor ,die cutting, lamination,wire and LED connection...

MARKETS

- Wearable (low amperage flex circuit, smart clothing sensor)
- Medical (sensor,anti bacterial)
- Handset/Consumer/IOT (flex circuit,LED)
- Automotive (sensors,LED)
- Military/Aerospace (shielding ,camouflage,lightweight circuit)



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AVAILABILITY

- Rolls
- Customized prototypes on demand
- Investigation on specific fabric on demand

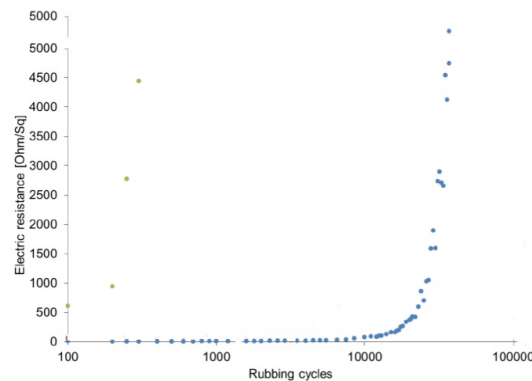
SPECIFICATIONS (stretchable knitted version)

TYPICAL PROPERTIES	FEATURES	TEST METHOD
Color	Shiny metal	
Thickness	0.55 mm	
Service temperature	-30 + 90°C	
High temperature short term	150°C/20 min	
Trace resistance:		
Original	<4 ohm/mm of width	4 points probe/10 mm length
20x20% stretch cycle	No change	
1x50% stretch cycle	No change	
Trace width	>2mm	
Abrasion	>50,000 cycles	ISO 1297-1
Metal Adhesion	>5	AATCC crockmeter
Folding	>500,000 cycles	ISO 32100:2011
Washing	>30 cycles	DIN 6330:2012

Data for design engineer guidance only. Observed performance varies in application.

Engineers are reminded to test the material in application.

Martindale Abrasion test Selective plating vs screen printing inks



- Carbon conductive ink
- Silver selective plating
- Silver conductive ink: out of scale < 100 cycles



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