

better together

Electro-conductive fabric for EMI shielding applications

Next generation of shielding fabric



## **Benefits**







# Why choose **Bekaert?**

### Solid partnership

Bekaert has the flexibility, experience and capabilities to create any steel yarns no matter what shape, composition or mechanical characteristic. We have been producing continuously for over 130 years, serving customers in over 120 countries.

#### Experience

developing and producing metal fibe products for a wide range of applications including solutions for electro-magnetic shielding. Our long time experience has given us the flexibility and technica know-how to provide you with a solution that perfectly matches your quality and performance requirements

## In-house R&D

To keep up with industries' evolving needs, we are strongly committed to nnovation. Together with customers, independent research partners and in-house research facilities we are

Create more durable, more efficient EMI resistant garments with Bekaert's highly electro-conductive fabrics. These patented fabrics consist of a blend of Bekinox® stainless steel fibers and aramid fibers. The added value of Bekinox® fabric is that it maintains low electrical resistance even after numerous washing cycles. This allows the production of protective garments that provide a long-lasting electromagnetic shielding performance and are comfortable to wear.



# Perfect for textile applications

Bekaert conductive fabrics combine excellent electrical conductivity and flame-retardant properties, allowing the production of single layered garments. They are lightweight, highly abrasion resistant and breathable, making them more comfortable to wear.

# Protecting professionals

Garments made of this fabric protect the wearer against the hazardous effects of working near various sources of electromagnetic radiation e.g. power lines, transformers, switches and railway cables.

# Meeting your objectives

## Lightweight

The fabric weighs approximately 270g/m<sup>2</sup>.

### • EMI shielding and flame retardant

The fabric consists of flame-retardant fibers combined with a high percentage of Bekinox® stainless steel fibers and an additional electro-conductive component.

#### Highly conductive

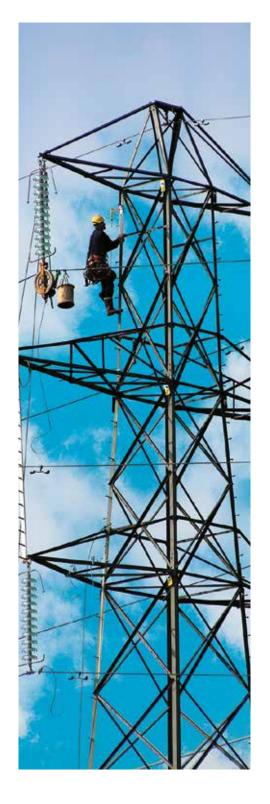
In line with a very good electrical conductivity, the fabrics obtain an electromagnetic shielding performance of 50dB over a broad frequency range.

#### Washable

The electrical resistance remains lower than 1 Ohm/square up to 30 washing cycles.

# Product properties

Parameters	Test method	Value	
Composition	-	Aramide/Bekinox	
Weight (g/m²)	EN 12127	270	
Width (cm)	EN 1773	150	
Tensile strength warp (N)	EN ISO 1421	> 920	
Tensile strength weft (N)	EN ISO 1421	> 790	
Breaking elongation warp (%)	EN ISO 1421	> 23	
Breaking elongation weft (%)	EN ISO 1421	> 17	
Air permeability (I/dm²/min)	EN ISO 9237	> 250	
Martindale (# cycles)	EN ISO12947-2	> 30000	
Electrical resistance ( $\Omega/\square$ ) up to 30 washing cycles	-	< 1	
Shielding efficiency (dB)	IEEE299	0-100 MHz	-
		100-1500 MHz	> 50
		1500-5000 MHz	> 40
		> 5000 Mhz	> 35



Contact us



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