## **BEKAERT**

better together

### **Anti-static textiles**



Reliable protection in explosive environments

### Bekaert in a nutshell

- Customers in 120 countries and in the most diverse industry sectors
- A world market and technology leader in steel wire transformation and coating technologies
- High investments in research and development
- An international team of R&D specialists
- Almost 30 000 employees worldwide
- Listed on Euronext® Brussels BEL20®
- Headquarters in Belgium
- Founded in 1880
- Combined sales in 2015: € 4.4 billion
- Consolidated sales in 2015: € 3.7 billion





### Imagine what we can do for you

When you need protection the most, Bekaert can help. Bekaert Bekinox® stainless steel fibers provide a highly effective conductor of static electricity while remaining durable and soft through numerous washes. They can be processed into different kinds of textiles just like other textile fibers that meet all international safety standards.

### Working with you

Bekaert's control over the entire production process means that your textiles can be produced with the product properties you need. We have the ability to draw wire in ultra-fine diameters to create 100% stainless steel fibers or filaments for your textiles. In addition, we can offer a blended yarn to be tailored to your specific characteristics. Your result? The effective protection from unwanted sparks that could damage people and equipment.

### Your partner in innovation

Co-creation is an important part of our way of working. We want to think with you to take your ideas from a thought to a product. It's an aspect that many of our customers in anti-static textiles appreciate because our in-house development teams will not simply give you a 'one size fits all' product. Together, we can discover new ways in which Bekinox® yarns can be used.

### A global partner, close to you

For 130 years now, customers in more than 120 countries have continued to work with Bekaert. Working with us means you can count on local contacts that speak your language and are close to your business. Our presence in just about every sector is a unique strength, both for Bekaert and for our customers.

### Anti-static textiles, protection when it counts

Static electricity is generated every day. A charge can build up when two unlike materials make contact and are separated from each other, for instance by friction or the rubbing of garments. Electro-static discharge is the transfer of this charge from one object to another, which results in an electric current. These common little shocks can have big consequences in specific environments. The result could be anything from costly damage to micro-electronic components or possibly even fatal casualties when a spark is generated and leads to an explosion.

Bekaert Bekinox® stainless steel fibers and yarns are highly effective in conducting static electricity away from people and products, and transferring that energy down to the earth when grounded. Fabrics containing Bekinox® stainless steel fibers do not charge up in earthed conditions, even after several washings. Each situation is unique and your customers' requirements may vary. This is why we have a range of products available, as well as the possibility to tailor a solution to what you really need.

The stainless steel fibers for anti-static textiles can be used in a number of applications.

### **Protective clothing**

Your protective textiles may require a special yarn that can secure anti-static protection.

Our stainless steel fibers end up in the most extreme environment like for example in oil and petrol installations in Russia. Bekaert Bekinox® does not charge up while grounded because the electricity is discharged immediately, so no rest charge can remain on the garment.

In anti-static protective clothing Bekaert Bekinox® BK 50, mainly introduced in the fabric in a grid structure of 10 x 10 mm, allows one to easily fulfill international standards for flammable and explosive atmosphere and for the electronic industry. With high conductivity, no rest charge will remain on the garment. If materials are poor conductors or insulators, very high charges can build up. At the approach of a conductor, these highly charged fabrics may discharge resulting in dangerous sparks.







### **FIBC**

For the flexible intermediate bulk container (big bags type C), our stainless steel fibers and yarns are an economical option. Since they are  $\pm$  50 times more conductive than carbon, less of the materials are needed to have the same anti-static result.

### **Anti-static filtration**

Bekinox® PES 12/50 is an intimate blend of stainless steel fibers with polyester. It has been especially developed to achieve static control in non-woven textiles for filtration. Typical applications include needle-punched anti-static felts for dry air filtration and anti-static insoles. Bekaert Bekinox® PES 12/50 GL has been specifically designed to be used with automatic feeding machines.



### Other applications

The Bekaert Bekistat® anti-static braid can reduce static electricity safely and inexpensively without needing a power supply to help sprayed powders stay in place or to remove the static build-up that occurs when unrolling film. It is made with a blend of stainless steel and polyester fibers that have a high electricity discharge capability thanks to the safe usage of the corona-discharge effect.

When blended with wool or other raw materials, Bekinox® stainless steel fibers and yarns are also an affordable choice for floor covering. Bekinox® stainless steel filaments can be used as brushes for printers.



### A world of possibilities

In addition to the applications listed, Bekaert can develop with you to create new solutions for your company. We have the willingness to explore your previously unchartered markets. We have the contact people to think with you. We have also the engineering know-how to make it work. Our experience in anti-static textiles means we can tailor a solution for you, one that meets the balance between comfort, durability and conductivity. You can rely on Bekaert to help you bring a new idea into reality.

## Global presence to support your business

Your need for worldwide service is met just around the corner.

The close proximity of our warehouses and plants to your production sites results in a constant supply of anti-static textiles, fast deliveries and minimal inventory held in your sites. Our strategic presence in different regions guarantees a flexible and just-in-time supply.

Furthermore, you can count on our local sales and service teams for technical commercial support. Dedicated account managers work closely with you on your project and can advise you about how our anti-static textiles can fulfill your needs.

## Developing for tomorrow

Being at the forefront of technological evolution is one of our key pillars.

We attach particular importance to co-development, starting from highly specific problems or business situations because, to us, innovation is a continuous improvement process.

Our technology centers are equipped with lab facilities for both fundamental and applied research. This allows us to develop solutions that are customized for your business, so that you benefit from shorter development cycles and consistently reliable product quality.

At Bekaert, R&D goes beyond product development. We can assist you to reach new markets with products in innovative applications.



## Product portfolio based on your needs

Bekaert Bekinox® fibers and yarns are engineered to your needs. We control the quality of products made for you from the wire rod to the innovative textile. This control of the entire production process allows us to provide you with outstanding quality products tailored to your needs.

Upon request, you can submit samples of your product for testing the electrostatic properties or electrical conductivity and for evaluation. Our sales and support team will help you to finally determine the specific requirements your products.

You can find Bekinox® in both 100% stainless steel and blended materials, and it is produced in both slivers and yarns. Bekinox® PES 12/50 can be supplied in bulk or as chopped sliver and simplifies the blending of Bekinox® stainless steel fibers with textile fibers.

### **Total Quality Management**

Maintaining a high level of quality is a continuous process. That is why our quality procedures are regularly evaluated and why we use the feedback of our customers to do so. Our extensive quality control and defect filtering offers a consistency warranty while eliminating excessive waste and safeguarding the quality of your product. Choosing Bekaert is choosing for a high performance product supported by Total Quality Management.





### better together

# How can your company benefit from Bekaert electro-conductive textiles?

### **Building close partnerships**

We want to work with you to better understand your needs. It's a pre-condition for building close partnerships that result in solutions that work for your company. With control over the entire production process, the fibers can be developed with the product properties you need. We have the ability to draw wire in ultra-fine diameters and to find unique coatings. We can tailor our product to offer you specific electro-conductive and heat resistant characteristics. Your results are oxidation resistance and stress-free performance.

If you want to find out how our high quality fibers, filaments and yarns can work for you too, we are happy to advise.

Please contact your local Bekaert specialist.

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