

 **BEKAERT**

better together

Bekipor[®] porous metal fibre media



Offering you high performance through technology and innovation

Benefit from 25 years of experience in porous metal fibre media

Bekaert metal fibres are thin metal filaments, produced in various alloys to meet your specific application requirements. Our metal fibres media, composed of these fibres, range from 1.5 to 80 microns in diameter (cf. a human hair: 70-100 microns).

Our porous metal fibre media have been used for over 25 years now in highly demanding applications, where extremely high porosity must be combined with chemical, corrosion and temperature resistance.

Our media is used in various forms and series as the basis for:

Filter Candles/Elements

Filter elements (pleated or not): the main applications for filter elements built with sintered fibres are the filtration of melted polymers and other critical products like hot gases or special chemicals. These filter elements guarantee a higher dirt holding capacity versus meshes.

Leaf discs

A stack of filter discs may profitably replace a set of candles for applications where fine filtration is linked to high operating pressures.

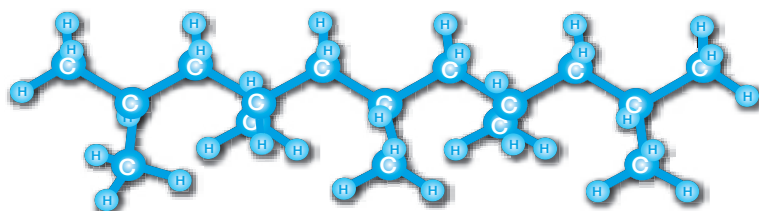
Spin packs

Flat filters are typically used for spinning synthetic fibres (PET, PA, etc.). In this case, the sintered fibres are the last step in purifying the polymer before becoming a fibre.

Here are our primary application areas:

- **Polymer filtration:** polyaramides, kevlar®, polyesters, polypropylene, polyamide, nylon®, peek, ...
- **Spinning polymers**
- **Automotive:**
 - air filters
 - lubricant filters
 - filters for airbag inflators
- **Chemical and catalyst recovery**
- **Aerospace**
- **Hot gas filtration**
- **Medical and pharmaceutical**
- **Hydraulic and fuel**
- **Nuclear venting**
- **Acoustics:** Sintered metal fibres absorb noise excellently, even in extreme conditions such as air compressors, aircraft, etc.
- **Food & beverage:** Sintered metal fibres are well-suited for the filtration for food and

- beverages, as the material can be fully re-used and sterilized
- **HEPA & ULPA filtration**
- **Burners:** Made of high temperature resistant alloy, sintered metal fibres are used as radiation material for burner applications
- **Inkjet:** Very small filters, made of sintered metal fibres, are used in PC printer cartridges
- **Web:** Non-woven metal fibres are used in liquid-liquid separation (coalescing) and liquid-gas separation (demisting) systems



Giving you a competitive advantage with high flow rates: Polypropylene



Longer on-stream lifetime



The high porosity allows you a low pressure drop: PET-bottles



The open structure of porous metal media allows you to clean the filters easily: polymer film

Bekaert is always close to you

Being close to you is central to the Bekaert strategy. This means you can count on your local contacts who speak your language and are close to your business:

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We also have a number of local agents around the world. If you would like to get in contact with a Bekaert agent near you, please contact us at bftinfo@bekaert.com or call +32 56 76 67 01.

Bekaert Bekipor® porous metal fibre media: flexibility and multifunctionality at your service

- Bekaert Bekipor® WB is a composition of metal fibres, uniformly laid, to form a 3-dimensional nonwoven porous web structure.
 - Bekaert Bekipor® ST is a family of uniquely designed metal fibre media, produced by sintering WB.
- This extremely porous, nonwoven fibre matrix is available as a single or

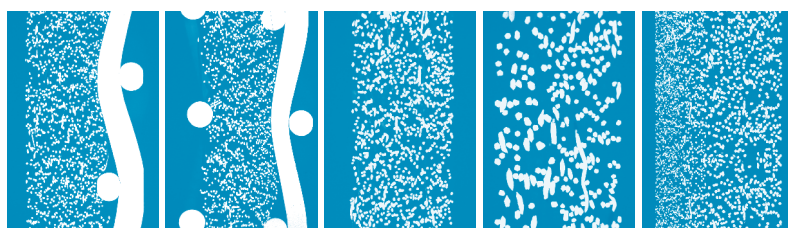


Bekaert Bekipor® WB: a nonwoven porous web structure.



Bekaert Bekipor® ST: a nonwoven sintered porous structure.

multiple layer structure. This metal fibre medium is also available with woven screen mesh sintered to either one or both sides. Adding wire meshes increases the strength, protects the fibres, and allows cross-drainage between the medium and the perforated core structure.



single support mesh two support meshes monolayer two-layer multi-layer

For filtration, the absolute filter ratings are:

- for liquids – 1 to 80 µm
- for air & gases – below 0.1 µm is possible (HEPA, ULPA)

Our broad product range offers you the right solution

Our wide range of products is available in large sizes and continuous rolls. Standard dimensions are: panels – 1180 x 1500 mm / rolls – 400 mm wide. Standard alloy is 316L. Special alloys (Fecralloy, Inconel, HR) are available, upon your request, for high temperature and corrosive environments.

Quality control

A customer-driven, high-technology organization, confirms our commitment to Total Quality Management with our ISO 9001 certificate, awarded in 1991 and re-certified in 2006.

Tailored to your needs

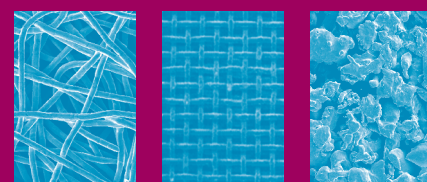
The superior properties of Bekaert stainless steel fibres allow you to use them in a variety of shapes and forms. We design the solution together with you. Next to our standard products, we can compose fibre compositions developing different filter media to your needs.

Discover yourself why Bekaert is your source for media

The advantages of Bekaert Bekipor® porous metal fibre media:


- **Extremely high porosity (up to 85%)**
 - high flow rates: up to 20 times higher than other media types
 - long on-stream lifetime
 - downscaling is possible (fewer filter surface is needed to filter the same)

Bekaert Bekipor® ST porosity versus other media types:



Bekaert Bekipor® ST Sintered wire mesh Sintered metal powder

- **Low pressure drop:** The high porosity of our metal fibre media allows a very low pressure drop (and thus lower energy cost), even at high filtration velocities
- **Ease of cleaning:** The open structure of porous metal media allows you to clean in situ by backpulsing or backwashing.
- **Thin membrane** (easy to pleat and shape)
- **High strength:** The sintering process creates strong fibre bonds and guarantees a high-strength filter medium. Combined with an appropriate inner core, our filter elements can withstand thermal shock, high pressures, and frequent backpulsing.
- **Heat & corrosion resistance**
Our filter media can be used in high temperature (up to 1000 °C, depending on the alloy) and/or corrosive applications – where non-metallic textile, ceramic or polymer products fail
- **Can be used for surface or depth filtration.** Our filter media enables you to achieve high efficiencies through a cake build-up (surface filtration) and also offer high dirt holding capacity for depth particle capture (depth filtration).
- **Stainless steel and other alloys available:** not brittle, chemical cleaning is possible, weldable, low thermal expansion, maintains structure (no thermal shock) Depending on the performance you require, we select the proper alloy to provide the required resistance and strength
- **Available with multi-layer structure** (for increased dirt holding capacity in depth filtration)



Bekaert is a worldwide leader in selected applications of its two core competences: advanced metal transformation and advanced materials and coatings.

Committed to being your preferred partner

We want to be a valuable partner in providing products and solutions tailored to your needs. Eager to understand your situation and processes, we see this as a pre-condition for building close partnerships that result in solutions that work for your company.

Imagine what we could do together...

Your requirements stimulate our passion to innovate. Our specialists and researchers think along with you to come up with new products and applications. It is our goal to improve your processes so that your products will have superior properties.

Working in partnership with you to find solutions, we provide a diverse range of high-tech products, systems and services to give you high added value. Our long-term partnerships and co-operative relationships constantly yield new products to renew and extend our product portfolio.

Bekaert is always close by

Based in Europe with headquarters in Belgium, Bekaert employs 16,400 people in 120 countries. You can find us in most countries worldwide. In case you have specific needs we will be happy to pass by.

How can your company benefit from Bekaert Bekipor[®] porous metal fibre media?

This brochure explains why Bekaert Bekipor[®] porous metal fibre media help you to reduce your total costs. If you want to find out how these high quality media can work for you too, we will be most happy to advise.

Please contact your local Bekaert specialist.

Their details are inside.

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