

nega-stat[®]

the defining standard in static dissipative yarns

by barnet

ANTISTATIC PROTECTION
THAT WILL NOT WEAR OFF
AS TIME WEARS ON



nega-stat.com

CLOSE TO THE MARKET

from distributor to producer

Since the foundation by William Barnet II in 1898, Barnet has traditionally been a classic trading company with a global network that has grown over decades. During this period, Barnet has continuously expanded its activities and markets, and gradually developed into a manufacturing company.

The traditional trading of industrial, textile and technical yarns and various fibers is still a central part of Barnet's business activities. In addition, we produce the patented antistatic yarn nega-stat® as well as short-cut and staple fibers and recycled high-performance fibers.

Over the years, the job profile of our sales staff has also changed. While our main activity used to be almost exclusively the buying and selling of fibers, polymers and yarns, technical matters have increasingly come into focus. Today, we closely accompany our customers in the development process of new products if required.

With constant in-house quality controls, material testing and close cooperation with research institutes in the textile sector, we are able to offer reliable products and services. This can range from supplying standard, customized or redefined specialties for high-end textile applications to being your partner for innovative developments.

Continuous development of the portfolio makes Barnet a reliable and flexible partner to this day; always focusing on the needs of the world markets.



1898

Founding of the **company**



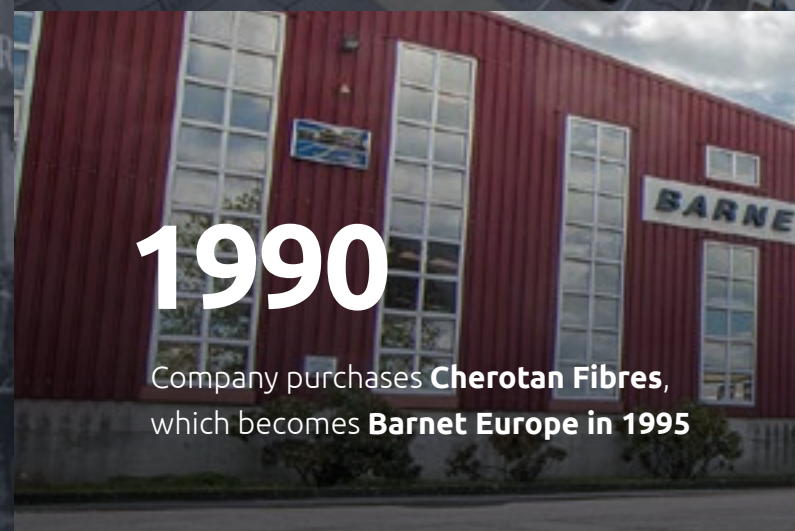
1970s

Purchase of **Arcadia site**, which remains company **headquarters** today



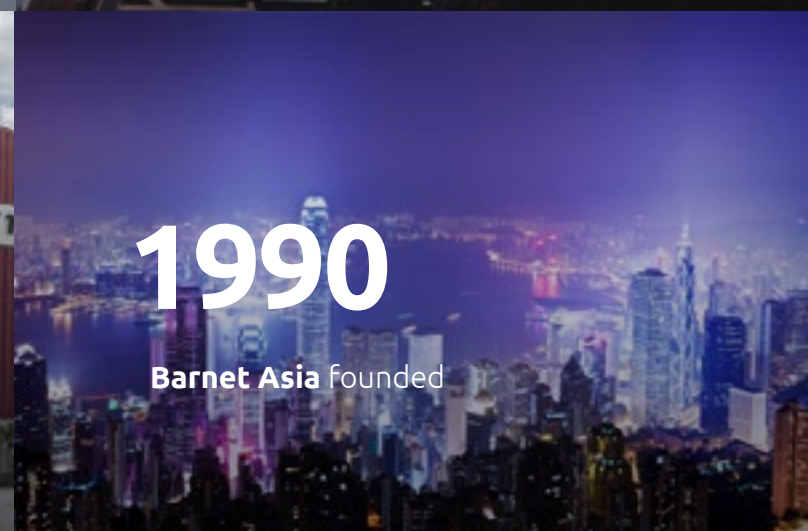
1979

Acquisition of **PCW plant** in **Kinston**



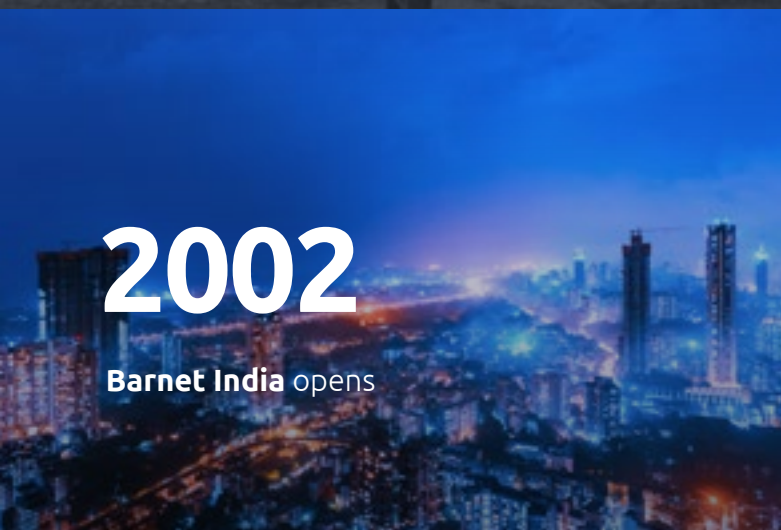
1990

Company purchases **Cherotan Fibres**, which becomes **Barnet Europe** in 1995



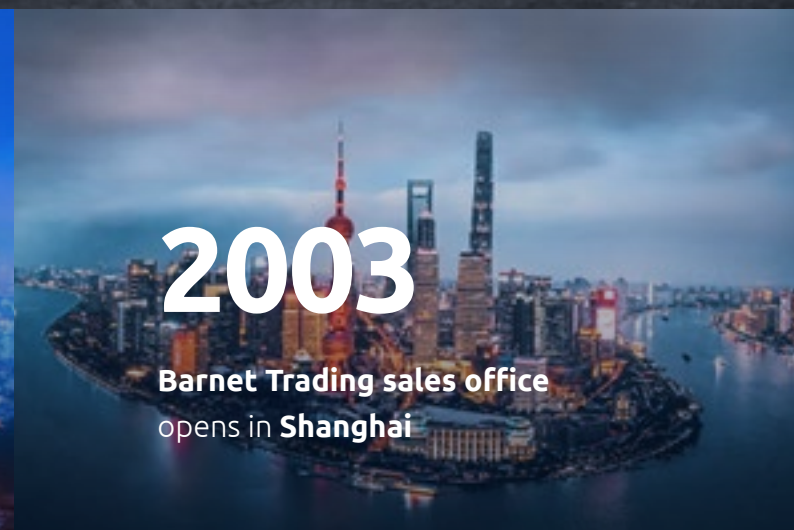
1990

Barnet Asia founded



2002

Barnet India opens



2003

Barnet Trading sales office opens in **Shanghai**



2012

Barnet Fibers Manufacturing opens in **Qingpu, China**



2017

Acquisition of **The Davy Group** under **Barnet Europe**



2020

New production facility for **nega-stat®**



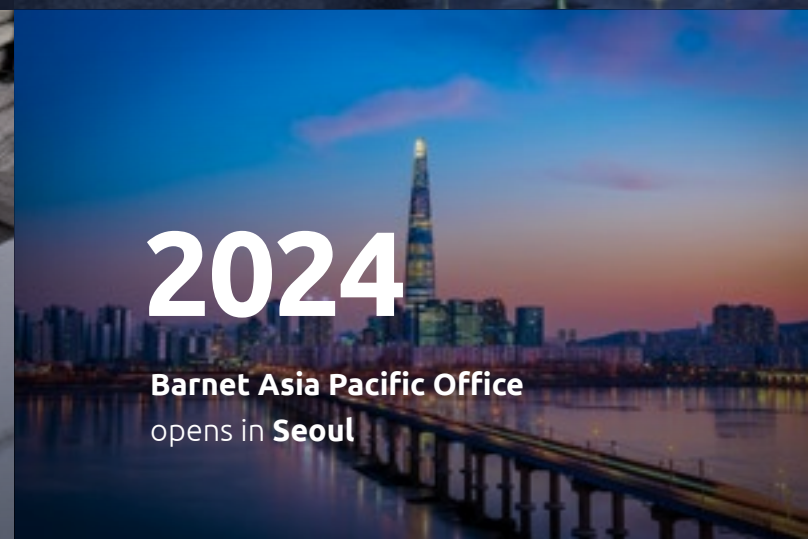
2023

125th anniversary



2023

production facility for **barnet-carbon®**
Oversized & Chopped fibers



2024

Barnet Asia Pacific Office opens in **Seoul**

2000
CUSTOMERS



500
EMPLOYEES
WORLDWIDE

100000 | **220 MIO**
TONS | POUNDS
ANNUALLY



OVER 125
YEARS
OF EXPERIENCE

50
COUNTRIES

9 LOCATIONS
ON FOUR
CONTINENTS

16 DISTRIBUTION
WAREHOUSES
ACROSS THE WORLD



intelligent materials



VERSATILE POSSIBILITIES

fibers

Our fibers have been used in the textile and paper industry for decades due to their consistent quality. We offer a wide range of products for any kind of application.



EXTRAORDINARY PROPERTIES

high-performance fibers

Thanks to a large selection of different materials, the right fiber performance is available for every requirement.



BROAD PORTFOLIO

yarns

Our textile and technical high-tenacity multifilament yarns offer a broad portfolio for all imaginable areas of application, such as fabrics, nets, ropes, round slings, etc.



STRENGTH AND STABILITY

polymers

Our recycled polymers fully meet the requirements of sustainability in the production of thermoplastic packaging or textile products. If recycled polymers do not fit your application, we offer a range of virgin polymers as well.



THE DEFINING STANDARD
IN STATIC DISSIPATIVE YARNS



nega-stat®

nega-stat® yarns are used in products and industrial end uses where both full grounding is essential (standard workspaces, no mobility issues) or in applications where it is not possible to insure complete grounding.

YOUR
POSSIBILITIES

product range

- | | | | |
|--------------------|---------------|------------|------------------|
| • Polyester | • Para-Aramid | • PEEK | • PAN |
| • Nylon 6/PA 6 | • Meta-Aramid | • Novoloid | • OPAN |
| • Nylon 6.6/PA 6.6 | • HMPE | • PBO | • barnet-carbon® |
| • PP | • PPS | • Viscose | |
| • Polyimid | • LCP | • Lyocell | |

the defining standard in static dissipative yarns

nega-stat® is introduced into textile materials in a defined grid and stripe patterns to provide optimum protection in a wide range of industrial end-use situations against the risks and hazards caused by static electricity.

nega-stat® yarns are used in products and industrial end-uses, where full grounding is essential and in industrial applications where it is not possible to ensure complete grounding.

the performance
of nega-stat® is
defined by the end-
use requirement or
the industrial risk
and hazard

- Protection of sensitive electronic equipment against static discharge from personnel
- Reduction and control of particles from personnel
- Reduction and control of bacteria from personnel
- Protection against incendiary discharge from personnel and clothing in hazardous industrial environments
- Control of static hazards in or from industrial equipment during operation and processing
- Control of static as an essential part of the technical process

- **Industrial Safety**
(Container Bags (FIBC), Conveyor Belts, Filters)
- **Protective Garments**
(Cleanrooms, Paint-Shops, Industrial workwear, Automotive, EV Battery Manufacturing, Medical Clothing, Operating Gowns, Food Processing, Bacteria Control, Electronics/Pharmaceutical)
- **Military Applications**
- **Automotive Upholstery**
- **Bedding**
- **Comfort and Performance Apparel**
(Hosiery, Lingerie, Outerwear, sportwear)
- **Copier Brushes**
- **Smart Fabrics**
- **Ropes and Harnesses**



Scan the QR-Code for detailed Informations about the **nega-stat®** applications.

APPLICATIONS

nega-stat®

The performance of **nega-stat®** is defined by the end-user requirement or risk hazard like the protection of sensitive electronic components and equipment, control of dust particles or personal protection against incendiary discharges in hazardous environments.

Accordingly, **nega-stat®** is used in many textile applications where the protection of people or the direct work environment is needed.

CORE CONDUCTING YARN

nega-stat®

P190

nega-stat® P190 is a fine filament bicomponent yarn. Each filament has a unique trilobal shaped conducting core that is surrounded by a sheath of polyester.

nega-stat® P190 is a high tech core conducting electrostatic field dissipator that works on the principles of charge induction and ionization.

Materials containing **nega-stat® P190** threads in selected grid or stripe patterns do not necessarily require a restrictive perfect ground to be effective in specific end-use situations

nega-stat® P190 has been designed to provide optimum antistatic protection in both grounded and ungrounded situations according to end-use specifications or individual performance requirements.

The outstanding antistatic performance of **nega-stat® P190** is provided by the unique trilobal conducting core.

The outer sheath of polyester provides exceptional durability in industrial applications against abrasion, wear, washing, sterilization and chemical treatments.



DETAILED INFORMATION

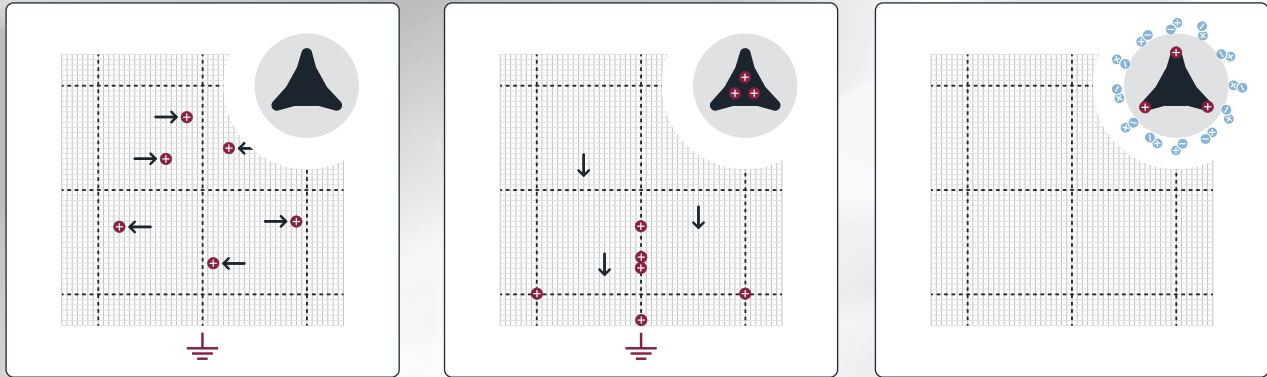
Scan the QR-Code for detailed Informations about **nega-stat® P190**.

performance of conducting threads to control static

Conducting threads are introduced into any non-conducting or insulating fabric in a selected grid or stripe pattern according to the specific end-use performance requirement.

When conducting threads are introduced into an insulating base fabric the resulting fabric is inhomogeneous. The base fabric remains an insulator with a matrix of conducting threads.

Static dissipation and control is provided by three separately working mechanisms :



1. Induction

2. Conduction

3. Corona Discharge

The electric field surrounding the charge on the insulating base fabric is attracted to the conducting threads by a mechanism called Induction.

This has the immediate and continuing effect of reducing the charge and the surface voltage on the base material to low statically neutral levels.

The induced charge from the fabric into the conducting threads is carried to ground by Conduction when the material is fully grounded and the fabric remains statically neutral.

If the fabric or material is not fully grounded, the induced charge into the conducting threads will build up until Maximum Charge Density is reached, at which point the threads will discharge naturally into the air as a Corona Discharge.

DETAILED INFORMATION

Scan the QR-Code for detailed Informations about **nega-stat® P190** and its functional principle.



surface resistivity vs. static reality

Measuring the Surface Resistivity of an Inhomogeneous material defines only the surface conductivity of the conducting thread and gives no indication about the level of electric charge remaining on the base fabric.

Surface resistivity measurement of an inhomogeneous fabric will be the same irrespective of the grid or stripe pattern of the conducting thread.

the unique performance of nega-stat® P190

nega-stat® P190 works on the principle of charge induction and ionization and, unlike surface conducting yarns, does not need a restrictive perfect ground to be effective.

The outstanding antistatic performance is provided by the unique trilobal conducting core of **nega-stat® P190**.

The electric field on the base fabric is induced directly onto the tips of the conducting trilobal core which is surrounded by a polyester sheath.

Unlike surface conducting yarns, where the induced charge is retained on the outer surface of the threads, the induced charge is concentrated on the inner trilobal core of **nega-stat® P190**.

The effect is to control the electric field on the base fabric and to reduce the surface voltage to a static neutral level.

in industrial situations such as:

- control of particles (e.g. in car paint shops)
- control of bacteria (e.g. in food processing)
- bedding (the control of the body voltage/body electricity of a person)
- reduction of the risk of an incendiary discharge (e.g. in the gas-and oil industry)
- Type D container bags (e.g. filling/emptying of FIBC's)

where it is not possible to fully ground the product and the person.

nega-stat® P190 provides effective protection to meet specific end-use requirements, that cannot be achieved with a surface conducting yarn.

THE NEGA-STAT® PRODUCT LINE MEET ALL END USE PERFORMANCE STANDARDS AND REQUIREMENTS

Fabrics containing **nega-stat®** provide optimum performance in a wide range of end-uses from cleanroom clothing to car upholstery, from bedding to FR protective clothing and from bacterial control clothing to copier brushes.



ESD
IEC 61340



EN 1149-5
GOST R EN 1149-5



SURFACE
CONDUCTING
YARN
nega-stat®
P210

CORE
CONDUCTING
YARN
nega-stat®
P190

A range of **nega-stat®** yarns are offered to complement **nega-stat® P190** where a specific end-use performance or characteristic is required.

SURFACE RESISTIVITY

Where Surface Resistivity is the only defined performance requirement, we offer the surface conducting solutions **nega-stat® P210** and **DP40**

nega-stat® P210

The surface conductor **nega-stat® P210** is used in applications where full and permanent grounding is required and surface resistivity is the primary way to define the antistatic performance (e.g in ESD applications).

nega-stat® P210 is based on the unique trilobal structure of **nega-stat® P190** with the three conducting lobes coming to the surface to meet the performance Standard requirements specifically for Surface Resistivity.



Scan the QR-Code
for detailed
Information
about **nega-stat®**
P210 and its
functional principle.

The fine trilobal design provides all the same, unique, performance characteristics of **nega-stat® P190** when the material is fully grounded.

nega-stat® P210 provides optimum performance in cleanroom clothing where “zero” surface voltages are required.

nega-stat ® DP40

Because of the fine conducting trilobal cross section of **nega-stat® P210**, it may not be possible to bring the conducting element to the surface of the material in order to make good contact with measuring electrodes when measuring surface resistivity.

For full electrode contact, primarily in heavier weight cloths above 300gms/sq,mtr we have introduced **nega-stat® DP40** where the surface conducting quality is highly effective.

nega-stat® DP40 is a surface conducting bicomponent yarn with a polyester core and a complete conducting carbon sheath to ensure that **nega-stat® DP40** meets both surface resistivity and volume resistivity performance standards in all fabric and product constructions.

dyeable core conductors

Where a less visible / dyeable antistatic solution is demanded we can offer antistatic solutions based on the **nega-stat® P190** core conducting technology where the protective white sheath is accepting a wide range of different dye stuffs.

nega-stat® P190 is black and cannot be dyed. The **nega-stat® P190** grid or stripe pattern, will remain black in the final dyed material.

To meet any end-use requirement for the antistatic black grid or stripe to be hidden and not to show in the final product we offer a range of dyeable yarns, with different surface characteristics to meet specific dye selection and process requirements.

nega-stat® DP10 and **nega-stat® DP20** have a conducting core surrounded by a disperse dyeable polyester sheath.

nega-stat® DP60 and **nega-stat® DP80** have a conducting core surrounded by a basic dyeable polyester sheath.

The **nega-stat®** range of dyeable core conducting yarns offer the possibility to provide a dyed fabric without a visible black grid or stripe appearance and offers a selection to meet specific yarn composition and dyestuff performance requirements.



SUSTAINABILITY

recycling is in our DNA

“Sustainability is not a marketing tool that barnet has introduced; **it is our business model in action – since 1898.**”

Sustainability is primarily defined by Barnet as reducing the amount of raw material residues that end up in our landfills, pollute air and water or increase our dependence on fossil fuels. Post Consumer Waste and Post Industrial Waste such as by-products from fibers, yarns and the polymer industry are getting a second life by redefining their usability.

Barnet's history began with the recycling of production waste from the wool industry, thus designing a sustainable and still relevant business model at a time when the word “recycling” did not yet exist.



SUSTAINABILITY

more than reducing the amount of waste

17 united nations sustainability goals (SDGs) were set to achieve a better and more sustainable future for all; everyone needs to contribute. Our business culture and activities support the following SDGs which apply, above all, to the issues of environmental protection as well as respectful and fair coexistence.



**WE CARE FOR
OUR EMPLOYEES.**

Supporting an injury free work environment with a strong focus on minimizing risks and create preventive actions.



CONTINUING EDUCATION

Employees are trained internally on a variety of topics enabling them to perform their job, but are also offered external training possibilities to expand capabilities and knowledge



**SECURE JOBS IN A SAFE
ENVIRONMENT, GLOBALLY**

Our business model is laid out to generate sustainable growth. We enable our employees to work in a safe and respectful environment.



**INTELLIGENT
MATERIALS CONCEPT**

Seeing the possibilities in every kind of material – Creating alternatives – dealing with the unexpected – providing solutions – thinking without limits



RECYCLING IS IN OUR DNA

Next to our Intelligent Materials Concept, minimizing waste generated in our own production by re-use is a fixed part of our working concept



**STRONG PARTNERSHIPS
FOR A BETTER FUTURE**

Active participation in cross-industry collaborations on recycling and renewable material topics



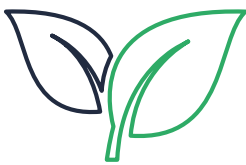
THE SUSTAINABLE CHOICE

Since 2022, our new brand **ecoware**® is, underlining our focus on sustainability.

ecoware® products must meet certain clearly defined characteristics in order to satisfy our requirement for a sustainable product portfolio.

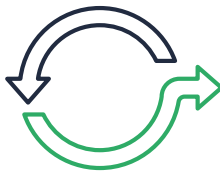
The **ecoware**® product range will grow continuously and will be adapted and expanded according to our customers' needs.

Products with the **ecoware**® label fulfill at least one of the following criteria:



bio-based

reduce products based on fossil fuel and increase the use of products from sustainable raw material sources



open loop

creating a second life or second application using the remaining performance and value of a material, thus creating products with low CO2 footprints



back to nature

increase the quantity of materials that degrade under certain conditions and within a certain period of time

**download
the ecoware®
flyer**

Find out more about our constantly growing portfolio of sustainable yarn and fiber solutions



Scan the QR-Code for detailed Information about **ecoware**®.

“We continue to challenge ourselves to further increase our contribution to the global goals.”

get in touch!

THE INTELLIGENCE OF MATERIALS

recognizing opportunities and benefits

We follow our conviction that every material – be it first grade, off-grade or textile waste – has its own inherent potential. The art is to recognize and optimally use this potential. Thanks to our many years of experience we know how to ideally exploit this intelligence of the material to produce high-quality first grade products or recycled types.

QUALITY CONTROL

barnet labs

Our laboratory closely monitors the material quality throughout the entire production process, from the raw material to the finished product. Like this, we ensure a consistent quality for all our materials and thus enable reliable production processes for our customers. In addition, we maintain a close co-operation with independent, external laboratories.

COMMISSION PROCESSING, CONTRACT MANUFACTURING, AND MANUFACTURING CONSULTANCY

customer service

We are also the right partner for subcontracting a wide range of manufacturing processes from manufacturing a single product to the operation of entire plant facility. Contact us to find the right solution for you. We have ISO certified management systems and world class manufacturing processes. Additionally, we can work with you to develop a circular approach for your products, adding value to your materials and making your company greener.

YOUR SOLUTION-PROVIDER

barnet – more than just a supplier of raw materials

You need technical advice on how to achieve certain product properties? You want to actively improve your product or pay more attention to sustainability? You want to sell your off-grades or old stock?

We think outside the box. That is why we are an effective and reliable problem solver to our customers and suppliers. Let your challenge become our challenge. Tell us your needs, we will find the right solution for you.

challenge us!

get in
touch



LOCATIONS

on site worldwide



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