



COMPANY PROFILE



We've

engineered safety yarns for more than 30 years thanks to our unique mix of proprietary technologies experience and know-how.



filtes



— We Yarn |

We were born and raised in an Italian industrial district that became Europe's 3rd most productive (Dec 2018).

We have utmost respect for our partners and we dedicate our resources to satisfy their demands with professionalism and high quality solutions.

Our proprietary stretch broken **yarn** manufacturing technology, where different raw materials are mixed, gives you the finest and most resistant spun yarn available. Our ability to engineer innovative blends allowed us to become premium partners with some of the best material companies around the world.



Safety—

We believe in **safety** above all.
That's why we've been spinning
safety solutions for over 30 years
to meet the most demanding
applications: from cut protection
to fire protection. New solutions
are constantly developed to
solve for customer needs.

history



1994

Carrara acquires Filtes originally a subcontractor.



2001

Export sales exceed domestic sales.



2003

Filtes is certified ISO 9001.



2006

Sergio Carrara becomes President, and initiates an ambitious investment program.



2008

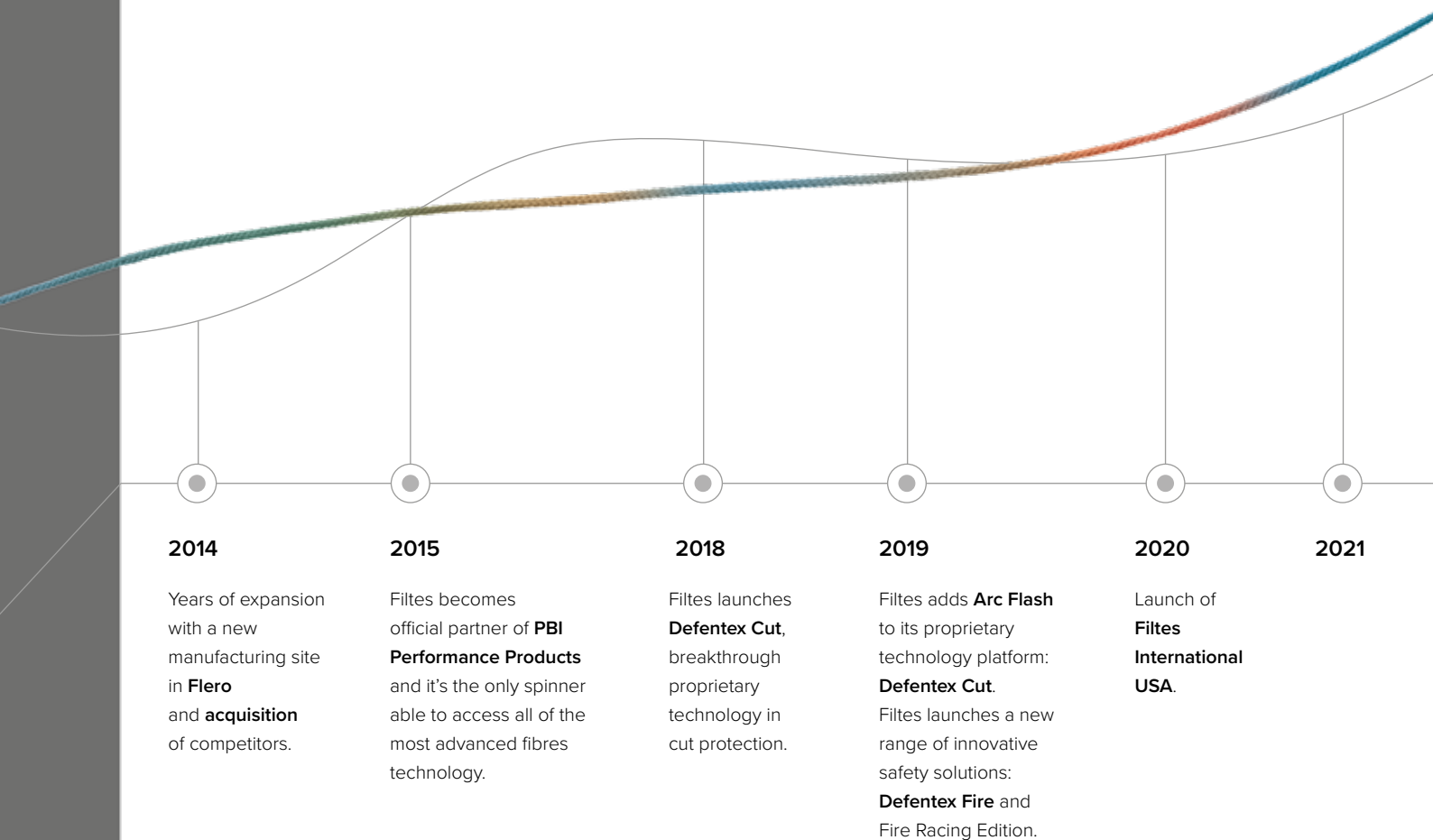
Filtes launches **Dynetex**, first step in developing proprietary technologies.



2011

Filtes becomes Premium Manufacturer Partner of **Dupont** and **DSM Dyneema**.

30 YEARS OF **TEXTILE** KNOW-HOW



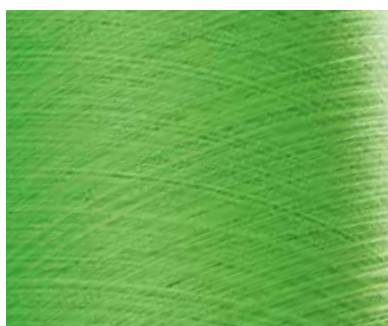
UNIQUE MIX OF



technologies

The request for multi-risk safety solutions lead us to develop a suite of innovative products. Filtes has invested in R&D since 1990 to create a manufacturing approach capable of handling and mixing different materials together. Our proprietary stretch broken yarn manufacturing process is the most prominent example. The combination of different materials together results in enhanced properties and performances compared to the use of a single material. This is a critical factor that let us engineer protective solutions against multiple risks without compromising comfort and dexterity.

Our know-how and technological solutions are available to our clients and can be tailored to face any challenge. **We can offer endless possibilities.**



EXCLUSIVE
PRODUCTS
NEED
INNOVATIVE
RESEARCH &
DEVELOPMENT



WE **TEST**
AND **CERTIFY**
OUR PRODUCTS
TO GUARANTEE
YOUR SATISFACTION

Our safety yarns are exclusive thanks to our unique manufacturing set up and features. Every product developed by Filtes is rigorously controlled and tested for quality by our internal laboratory so that everything complies with the highest industry standards. Filtes is certified ISO 9001:2015 and our products comply with OEKO-TEX® Standard 100.

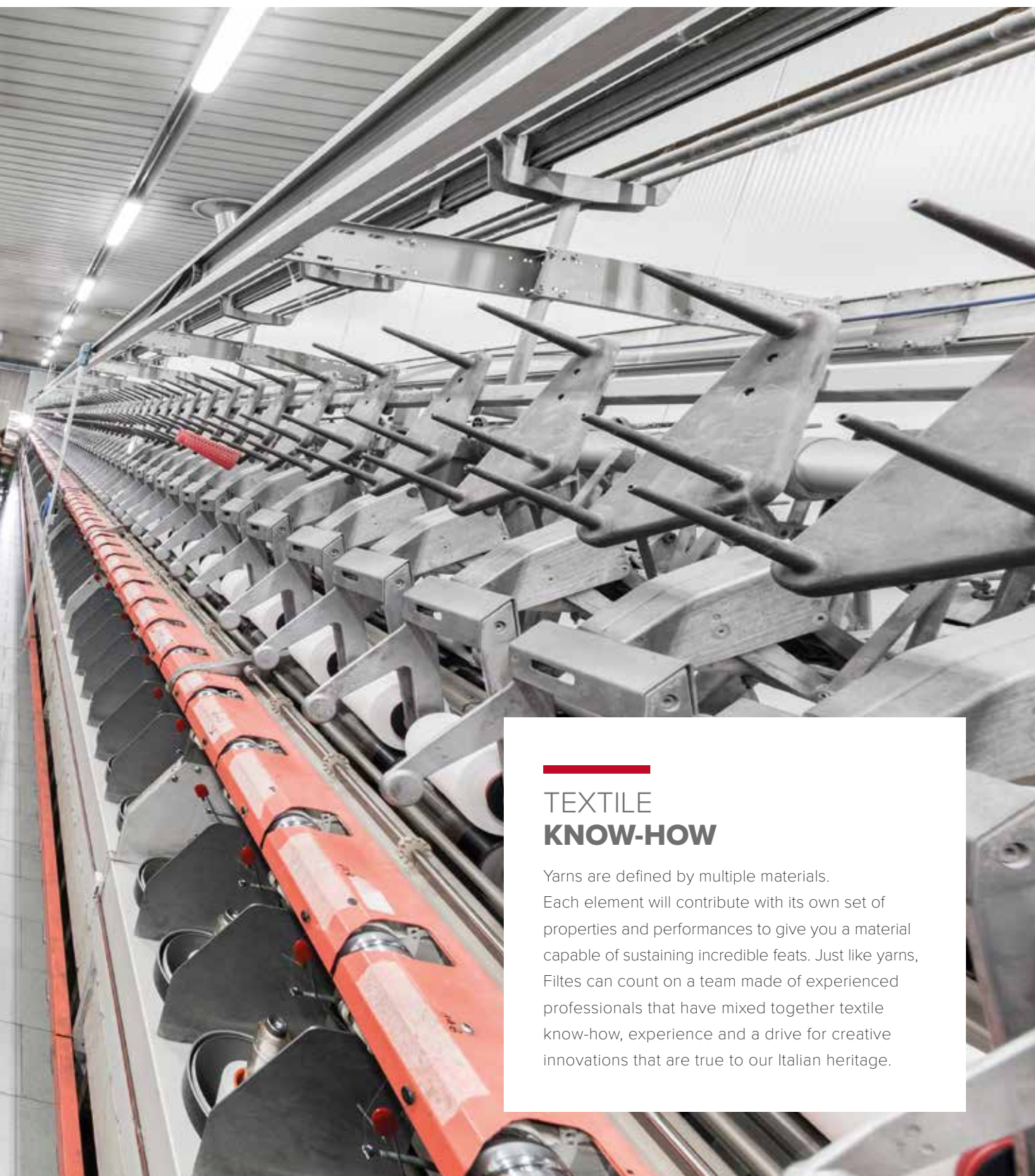


TRUSTED BY GLOBAL PLAYERS

Our ability to create innovative blends is a unique skill that we offer our customers thanks to exclusive partnership with the best fibre producers.







TEXTILE KNOW-HOW

Yarns are defined by multiple materials. Each element will contribute with its own set of properties and performances to give you a material capable of sustaining incredible feats. Just like yarns, Filtes can count on a team made of experienced professionals that have mixed together textile know-how, experience and a drive for creative innovations that are true to our Italian heritage.



INNOVATION READILY AVAILABLE

Along with our exclusive manufacturing process, we've set up our warehouse so that it's always stocked with high quality raw materials, allowing us to kick off projects swiftly. Our stock includes a vast portfolio of ready to ship safety yarns and sewing threads. Each item is hand-packed by our team to **ensure high quality standards.**



OUR **SHOWROOM** A DISPLAY OF SAFETY INNOVATION

In 2018 we've created a space to store all our products: From safety yarns to sewing threads. A space designed to host our partners and collaborate together to solve for their needs. Our doors are always open.





MULTIFUNCTION ENGINEERED YARN

STRETCH BROKEN YARNS

Dynetex - Dyneema®/Glass
Dynetex Steel - Kevlar® Black/Steel
Dynetex Steel - Dyneema® Diamond/Steel
Dynetex Steel - Twaron®/Steel
Dynetex Steel - Hppe/Steel
Top Twist - Kevlar® Black/Steel
Top Twist - Dyneema® Diamond/Steel
Top Twist - Twaron®/Steel
Top Twist - Hppe/Steel
Corespun - Kevlar®/Modacrylic/Glass

CONTINUOUS FILAMENTS

Texcor - Pes/Glass
Wrapped - Hppe/Pes/Glass x
(for food industry)
Wrapped - Hppe/Pes/Steel
(for food industry)

FIRE AND HEAT

STRETCH BROKEN & LONG STAPLE WORSTED YARN

Nomex® T450
Nomex® N327
Nomex® pigmented dyed
Conex®
Conex® Neo
Conex® dope dyed
Kevlar® natural yellow
Kevlar® black dope dyed
Twaron® natural yellow
Twaron® black dope dyed
MicroTwaron® natural yellow
Technora® natural yellow
Technora® black
Pbi® Gold
Pbi® LP
Panox® /Para-Aramide r-w
and black dope dyed Vectran®

CONTINUOUS FILAMENTS

Kevlar® yellow natural Filament Flat and/or Uptwisted
Kevlar® black dope dyed Filament Flat and/or Uptwisted
Twaron® yellow natural Filament Flat and/or Uptwisted
Technora® yellow natural Filament Flat and/or Uptwisted
Technora® black dope dyed Filament Flat and/or Uptwisted
Vectran® Filament Flat and/or Uptwisted
Para-Aramide yellow natural Filament Flat and/or Uptwisted



ABRASION AND ANTICUT

STRETCH BROKEN YARNS & LONG STAPLE WORSTED YARN

Dyneema®
Dyneema® Black
Dyneema®/Pa
Dyneema® Diamond
Dyneema® Diamond/Pa
Hppe/Pa
Dyneema®/Pa/Elastan

CONTINUOUS FILAMENTS

Dyneema® Filament Flat and/or Uptwisted
Dyneema® Black Filament Flat and/or Uptwisted
Dyneema® Diamond Filament Flat and/or Uptwisted
Dyneema® Diamond Black Filament Flat and/or Uptwisted
Hppe Filament Flat and/or Uptwisted

**DYNEEMA® AND
DYNEEMA® DIAMOND**
ARE ALSO AVAILABLE IN
THE **ECO-SUSTAINABLE**
BIO BASED VERSION

SEWING THREADS

STRETCH BROKEN & LONG STAPLE WORSTED YARN

Nomex® T450
Kevlar®
Kevlar® Black dope dyed
Dyneema®
Kevlar® Steel
Kevlar® Black dope dyed/Steel

engineered EXCLUSIVE yarns

OUR **R&D TEAM** HAS DEVELOPED THESE PRODUCTS TO SATISFY YOUR NEEDS FOR **MULTI-PURPOSE YARNS**. THE GOAL WAS TO CREATE INNOVATIVE SOLUTIONS THAT COULD DELIVER THE **HIGHEST PERFORMANCE** POSSIBLE FOR BOTH COMFORT AND SAFETY.

Top Twist

The latest innovation from Filtes is TOP TWIST: an engineered yarn that combines high comfort with functionality. Safety, protection to cut and abrasion resistance are possible thanks to a core yarn made of reinforcing threads such as steel, tungsten or glass fibre. We are capable to achieve such result in spite of the many materials involved, the results? A thing yet strong yarn.



Dynetex

Ideal for protective gloves and safety clothing, this proprietary technology offers the best available performance against cuts and abrasions, meeting international standards for quality and safety. Our production procedure spins glass fiber spun with a polyester or polyamide thread avoiding the glass fibre to break and protecting the skin. Dynetex is available in a broad range of colors.



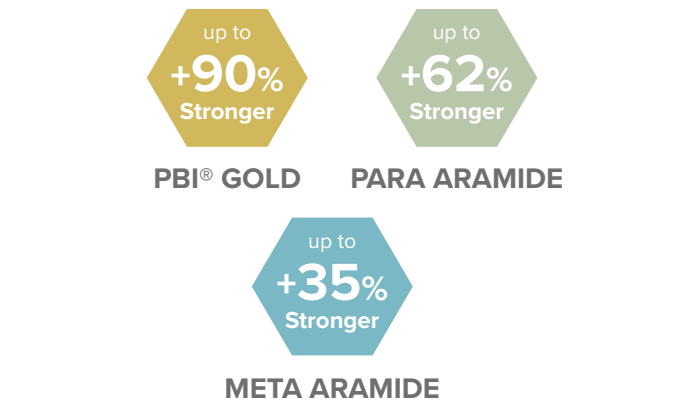
Stretch-broken

FILTES YARNS STRETCH-BROKEN SOLUTIONS VERSUS SHORT FIBRE. **THAT ARE NO MATCH.**

When it comes to comfort, safety and the thinnest yet strong fibers, only the stretch broken technology goes to far.

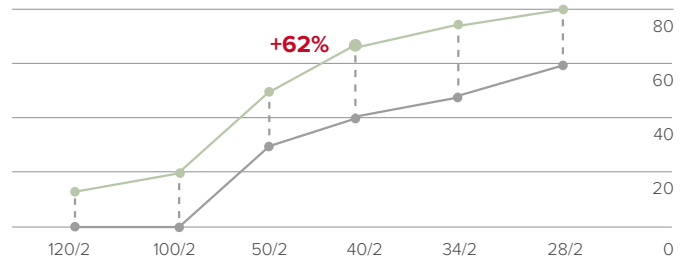
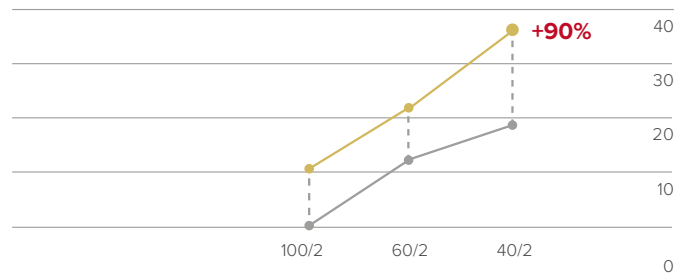
PBI® GOLD

	FILTES STRETCH-BROKEN	SHORT STAPLE
Count (NM)	Strenght (N)	
40/2	36,4	19,1
60/2	21	12
100/2	10,5	N/A



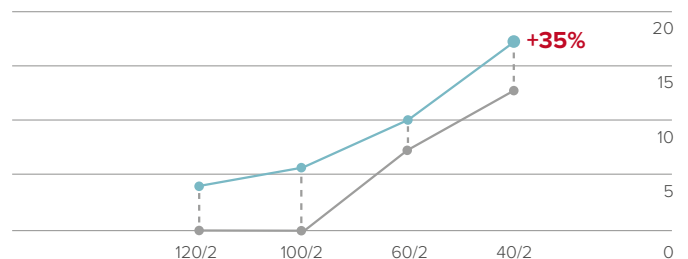
PARA ARAMIDE

	FILTES STRETCH-BROKEN	SHORT STAPLE
Count (NM)	Strenght (N)	
28/2	79	60
34/2	72	47
40/2	65	40
50/2	50	35
100/2	20	N/A
120/2	15	N/A



META ARAMIDE

	FILTES STRETCH-BROKEN	SHORT STAPLE
Count (NM)	Strenght (N)	
40/2	17,5	13,6
60/2	10,0	7,4
100/2	5,2	N/A
120/2	4,5	N/A

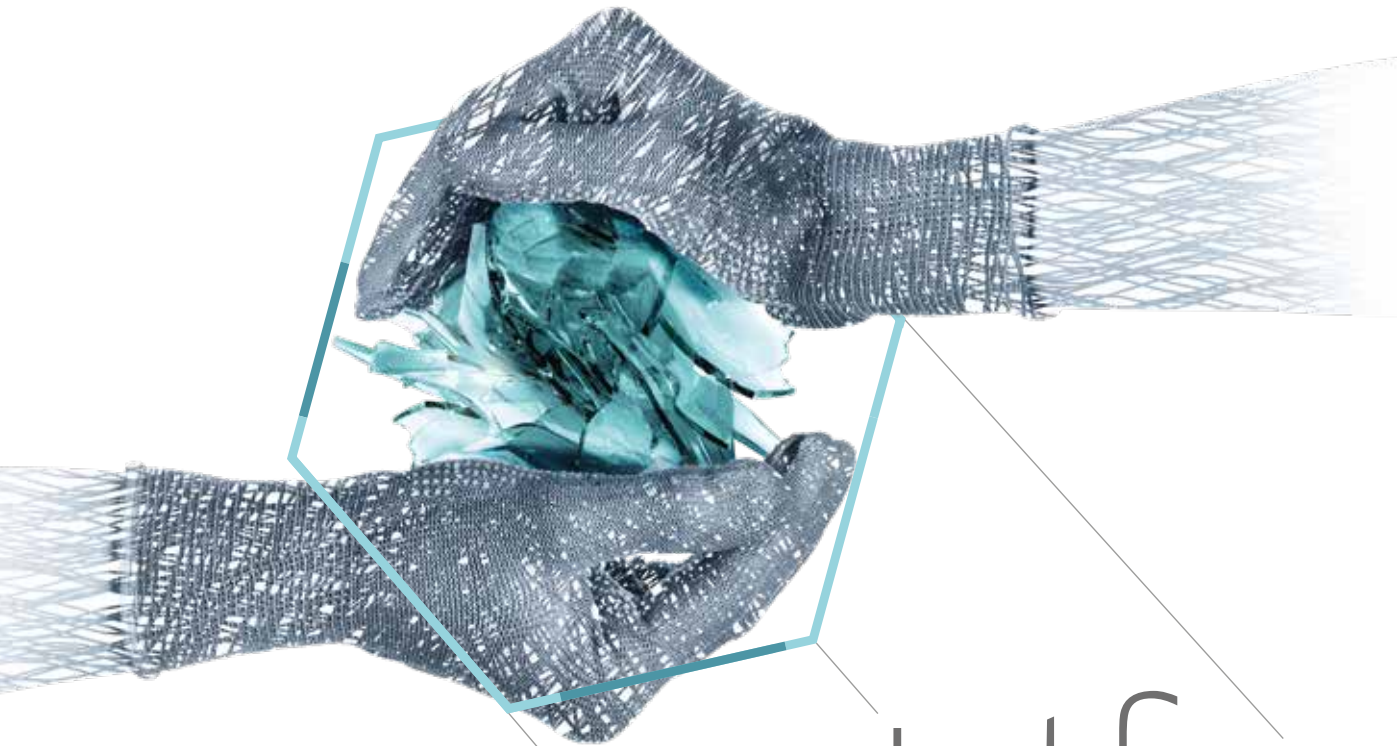


All data is proprietary and results may vary depending on test methodology.



In 2018 Filtes has launched its DEFENTEX platform.

This suite of safety solutions features our breakthrough proprietary technology in cut protection. It offers high level of safety, comfort and multi-risk protection.



platform



ULTRALIGHT



ULTRACUT



ARCFLASH

FILTES DEFENTEX ULTRA LIGHT 18GG represents an innovative safety solution that is engineered to deliver the highest level of dexterity thanks to its incredible light weight, achieving EN388:2016's cut level D and AINSI/ISEA 105-16's cut level A4.

FILTES DEFENTEX ULTRA CUT represents an innovative safety solution that is engineered to achieve the highest level of safety thanks to its incredible resistance to cut, achieving EN388:2016's cut level F and AINSI/ISEA 105-16's cut level A6.

FILTES DEFENTEX ARCFLASH offers all-round protection to workers starting by testing a level 2 rating for ARC Flash, achieving EN388:2016's cut level C and AINSI/ISEA 105-16's cut level A3.



In 2019 the DEFENTEX family sees the addition of DEFENTEX FIRE. Thanks to our unique mix of technologies we've engineered a blend of yarns that delivers the highest levels of flexibility as well as the opportunity to create fabrics capable of achieving great results with EN469:2005 and NFPA1971 standards.



FIRE



RACING

FILTES DEFENTEX FIRE

Obviously delivers high performances against thermal stress as well as fire resistance. This engineered yarn is extremely lightweight and features the innovative natural touch technology on the skin, allowing the Firefighter to benefit from great comfort and focus only the emergency in front of him.

FILTES DEFENTEX RACING EDITION

Our R&D team has leverages our know-how to assemble the unique mix of technologies to create a blended yarn that in spite of its thin structure delivers high tenacity and fire resistance bringing a whole new level of comfort to the driving experience.

HEADQUARTER

global solutions



FROM **FILTES**
TO THE WORLD





Filtes Headquarter
Capriolo (BS) - Italy

Filtes production plant 1
Capriolo (BS) - Italy

Filtes production plant 2
Flero (BS) - Italy



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