

FULGAR INNOVATION FIBER



Fulgar actively promotes sustainable development with a worldwide team which is over 1,000-strong and represents both our corporate achievements and Italian Excellence.



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FULGAR, as yarn supplier, just contributed with information about their technology in order to better help you. Those information are refer ONLY to the yarn and they can't be use without prior written permission of FULGAR spa

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“Zero-emission fashion” is one of the hottest topics of recent times. It describes an approach that involves the entire supply chain in a shared aim - **to protect our planet and keep it safe for future generations.**

More aware in their choice of products, consumers are increasingly focusing on “how it’s made”.

In this context, being able to use eco-sustainable raw materials gives companies a competitive advantage and provides a distinguishing feature for their products.

INTELLIGENT FIBRE FOR THE FUTURE OF TEXTILE



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EVO® by Fulgar is a yarn made from castor oil, deriving from the castor plant that grows spontaneously on poor arid soil and is not edible.

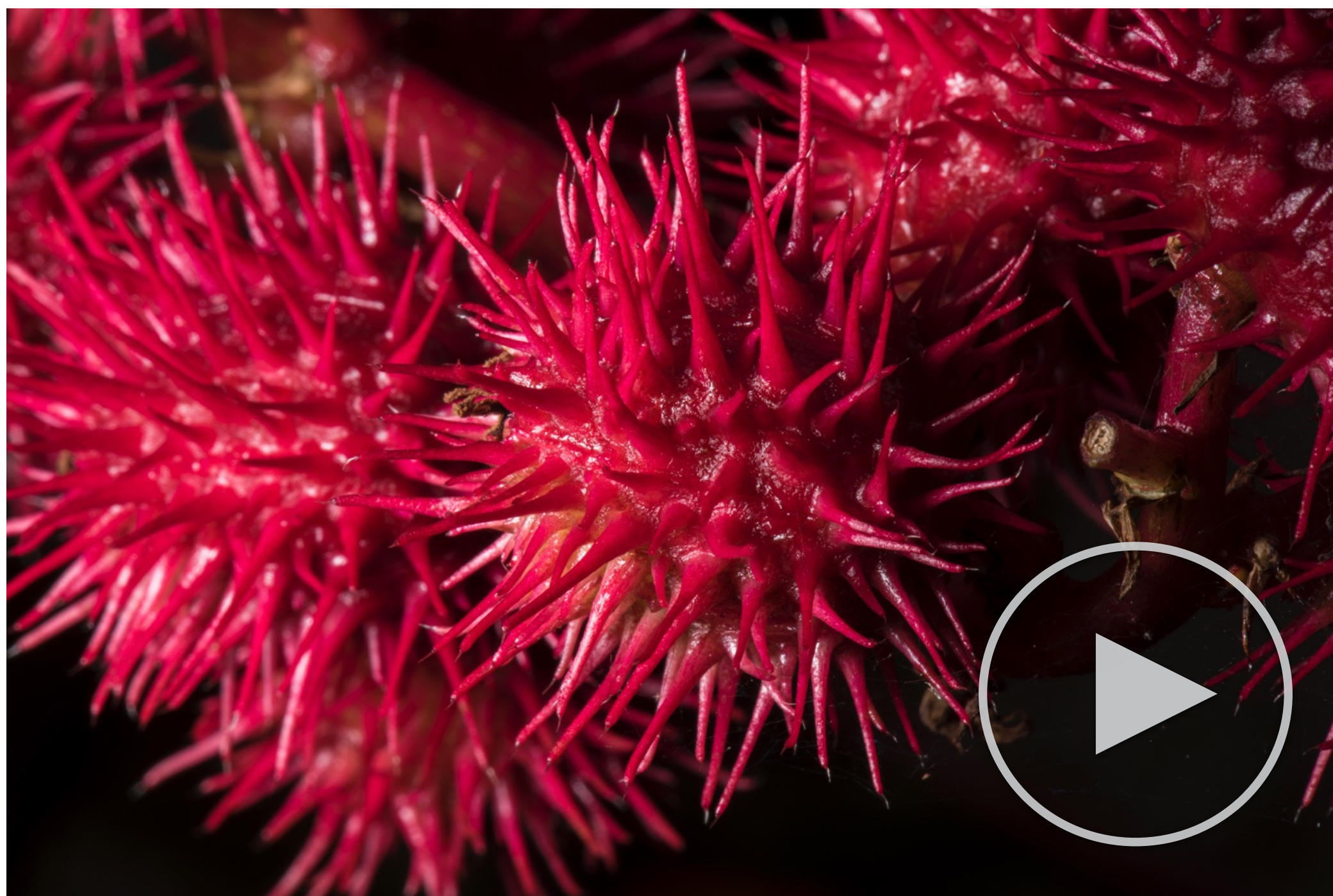
A **totally renewable** resource that does not require high amounts of water nor subtracts arable land for food purposes.

VESTAMID® Terra
A sustainable polyamide from Evonik.

	BIODEGRADABLE	DURABLE
BIOBASED ORGANIC SOURCE	BIODEGRADABLE AND BIO-BASED PLA	DURABLE AND BIO-BASED EVO by Fulgar®
PETROL BASED SOURCE	BIODEGRADABLE PETROL-BASED AMNI SOUL ECO®	DURABLE RECYCLED-BASED Q-NOVA®



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WHAT DOES BIO-BASED FIBER MEAN?

Officially a final product or plastic to be called bio-based must contain at least **20% renewable carbon content**. This renewable carbon content is derived from plant or organic matter such as specially cultivated energy crops.

EVO by Fulgar® IS 100% BIO-BASED



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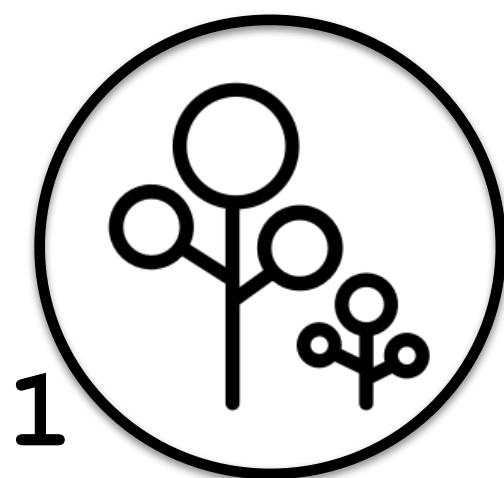
WHAT IS EVO by Fulgar® MADE OF?

The biomass source is castor bean, *Ricinus Communis*.
The monomers used in the polymerization are partially or completely sourced from **castor oil**.

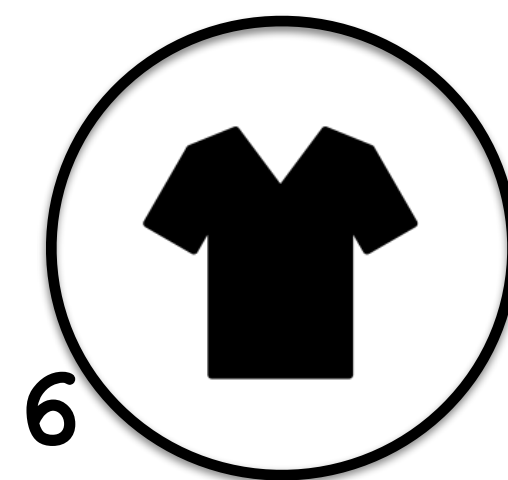
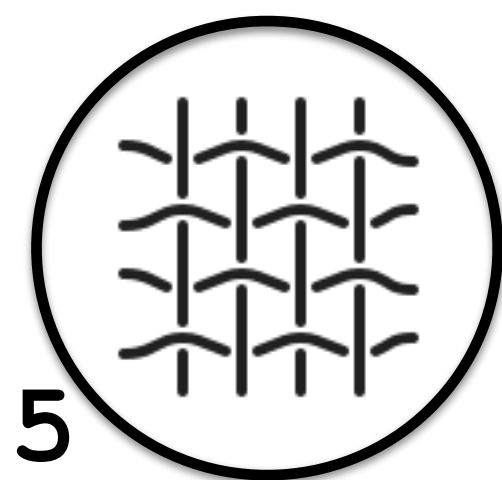
DOES EVO by Fulgar® AFFECT ON FOOD SUPPLY-CHAIN?

No, EVO by Fulgar® polymer is based on castor oil as a major part of its feedstock, **it does not negatively affect the supply of food crops.**

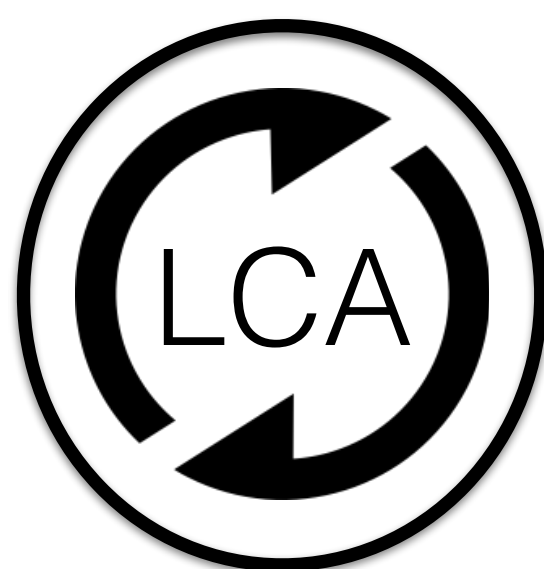
- **Castor bean not part of food chain.**
- Castor bean **can grow in none-competing areas.**
- Castor bean **is a very small crop**, meaning the arable-land used is only a fraction of a percent.



"FROM CASTOR TO EVO®
VALUE-CHAIN"



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WHAT PERCENTAGE IS THERE OF BIO-BASED CONTENT?

The 100% of EVO by Fulgar® fibre comes from **renewable carbon content**.

EVO by Fulgar® DETIENE DELLE CERTIFICAZIONI

- EVO by Fulgar® is certified **DIN CERTCO** according to **ASTM D 6866:2012-01 R.N° 8C096**.
- EVO by Fulgar® is according to PEF method **LCA - ISO 14040 and ISO 14044**.
- **OEKO-TEX STD 100 CLASS I appendix 6**.



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1,04 gr/cm³ EVO

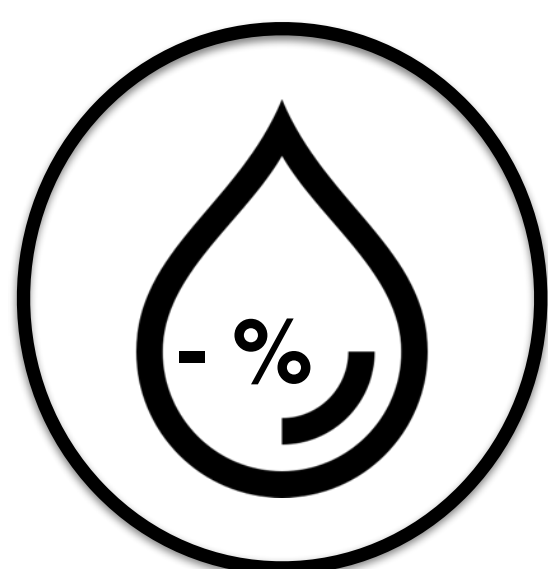
1,14 gr/cm³ PA6.6

1,34 gr/cm³ PES

LIGHTWEIGHT

Day by day textile market is looking for lighter fabrics and able to keeping the same coverage capacity.

“Today, thanks to **EVO by Fulgar® fibre is possible to reduce the specific weight by 25% respect to PES** and maintains the same coverage power”.



0,40 % PES

1,60 % EVO

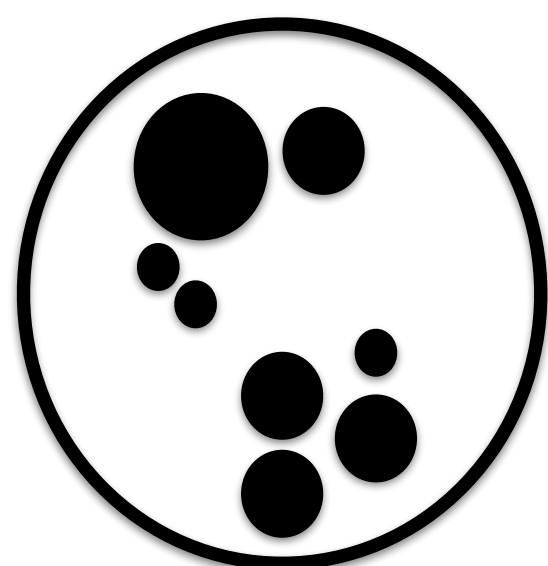
4,00 % PA6.6

MOISTURE MANAGEMENT

EVO by Fulgar® fibre combined the main properties of Nylon 6,6 such as: hard-wearing properties, resilience, good elasticity and comfort, with Polypropylene properties such as: **moisture management and lightness.**



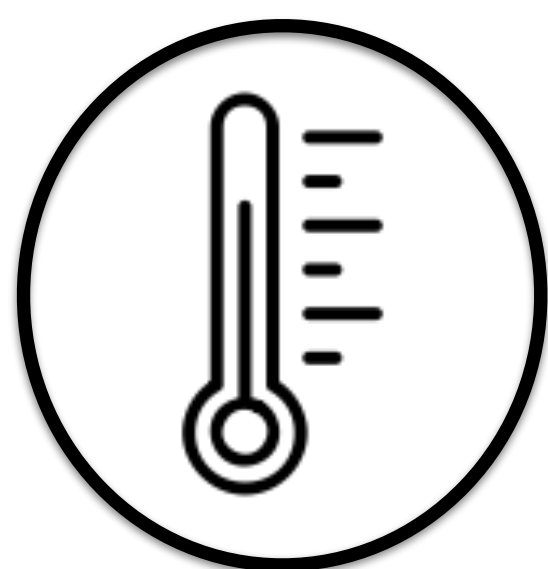
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**UNI EN ISO
2216**

ODOR-CONTROL PROPERTIES

EVO by Fulgar® thanks to its low moisture management, **has natural bacteriostatic capacities** which means odor control properties.



**UNI EN ISO
11092:2014**

THERMAL INSULATION PROPERTIES

EVO by Fulgar® fibre has a **natural thermal insulation capacity**, which means that this yarn can protect the human body from temperature changes.



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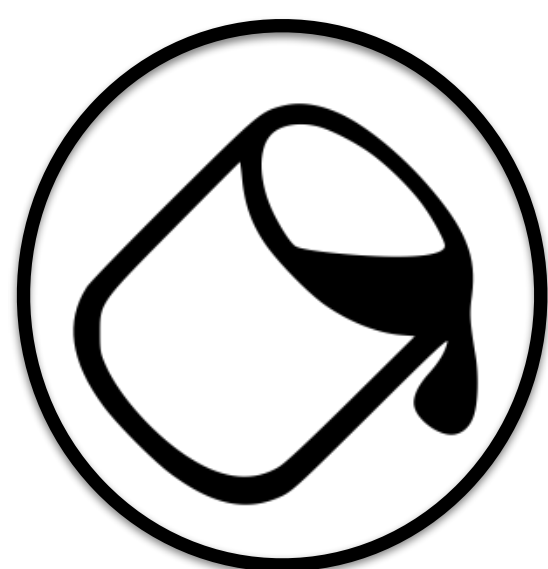
139 CN EVO

204 CN PP

207 CN PES

COMFORT

The elastic modulus of EVO by Fulgar® fibre is widely exceeding respect any other polyamide 6,6 (1900Mpa). This mechanical properties allows to create fabrics and garments with **high elastic modulus combined with a good compression.**



BRIGHT COLORS

The unique chemical structure of EVO by Fulgar® fibre is designed to obtain the maximum dye-ability performance. Fabrics and garments made with **EVO by Fulgar® fibre can be dyed with levels of wet fastness higher than standard Polyamide 6,6.**

EVO

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GUIDELINES FOR PACKAGING AND OTHER MARKETING TOOLS

1. Always make reference to the trade name of the yarn;

GARMENT CONTAINING Fulgar's BIO-BASED EVO® FIBRE

THIS GARMENT CONTAINS Fulgar's BIO-BASED EVO® YARN

or if contained in a piece of apparel:

BREATHABLE INSOLE MADE WITH Fulgar's BIO-BASED EVO® and featuring special properties

GUSSET MADE FROM Fulgar's BIO-BASED EVO® FIBRE

2. Other Terms to be used in the description of clothing items and apparel

- EVO® by Fulgar is a 100% bio-based yarn.
- EVO® by Fulgar is a "petrol-free" yarn.
- EVO® by Fulgar is a certified bio-based yarn.
- EVO® by Fulgar is a yarn made from renewable materials (castor-oil plant) with a low impact on the human and animal food chain.
- EVO® by Fulgar is an organic yarn.
- EVO® fibre by Fulgar is made using a sustainable certified bio-based process.

3. Always indicate the % of yarn used (always check the country of destination)

E.g.

90% Polyamide (EVO®)10% Elastomer (LYCRA®)

or add: 90% EVO® 10% LYCRA®

EVO® by Fulgar is a registered FULGAR spa trademark.



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EVO by Fulgar®

FAQ



What is EVO®?

Fulgar introduces a new way of producing fibres to interpret the needs and values of today's society, creating a perfect synthesis of performance and environmental awareness. Years of research into the highest engineering standards - in a manufacturing, environmental and social context - have led to the development of 'EVO® by Fulgar', a unique product, 100% bio-based innovative fibre that's set to revolutionize the sector.

What does BIO-BASED mean?

Officially a final product or plastic to be called bio-based must contain at least 20% renewable carbon content. This renewable carbon content is derived from plant or organic matter such as specially cultivated energy crops.

What is EVO® made of?

The biomass source is castor bean, Ricinus Communis. The monomers used in the polymerization are partially or completely sourced from castor oil.

What are the main properties of EVO®?

Suitable for all textile applications and an ideal solution for the sportswear world, EVO® by Fulgar is ultra-light, super stretch and extremely breathable. It's also quick-drying, non-iron and offers natural thermal and bacteriostatic properties. These distinctive values and benefits ensure maximum comfort and unmatched performance, while retaining an intense eco-awareness.

Is EVO® certified?

Yes, EVO® is certified DIN CERTCO system and by the OEKO-TEX STD 100 CLASS I system. All these certifications vouch for the integrity of the fibre.

How is it specified on the label?

EVO® falls under the polyamide (PA) goods class. If desired, the fact that EVO® is made using BIO-BASED fibres and/or its performance can be mentioned on the packaging and on any informative material. **It is necessary to indicate the relevant % and the product's commercial name. E.g. This garment contains the EVO® fibre.**

Are there any specifications regarding the use of the logo?

Yes, there are some specifications. Use of the logo is governed through the relevant request form.

Are there any tags?

Yes, it is possible to request tags through the brand usage request form.



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