CONSCIOUS MATERIAL SOURCING GUIDE

NEW | GUARDS | GROUP |

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INTRODUCTION

The FARFETCH Group is on a mission to be the global platform for good in luxury, empowering everyone we work with to think, act and choose positively. We have set ambitious 2030 goals to play our part in delivering a cleaner, more conscious, circular and inclusive fashion industry.

Through New Guards Group (NGG) we can directly impact the sustainability of what we produce through the sourcing of materials. This document is intended to give clarity on the best practice for sourcing materials which have the lowest possible impact.

Material sustainability characteristics is a complex area with many environmental and social factors to consider. In this guide we have classified and recommended the use of materials that:

Promote circular practices (e.g. recycled, upcycled, biodegradable materials)

Promote organic and regenerative practices (e.g. organic materials, those derived from regenerative agriculture)

Promote better animal welfare (e.g. vegan, responsible materials)

Promote lower environmental impact and fairer production processes (e.g. recognised low-impact materials, certified leathers, alternative leather materials, forest-friendly materials, fairmined gold)

Are based on third-party certified sources, over non-certified ones, where possible considering both labor and environmental impacts

HOW TO USE THIS GUIDE

We have divided this guide into four main sections based on the following material groups:

1. Cellulose derived materials

2. Fossil fuel derived materials

3. Animal derived materials

4. Mineral derived materials

Each material group contains a list of material subcategories which we have classified in order of preference, ranging from 'Best' to 'Discouraged'. Any material we have classified 'Best' or 'Good' aligns with our FARFETCH Group Conscious Criteria - allowing products to qualify for the 'Conscious Collections' on farfetch.com and brownsfashion.com.

For broader material categories — e.g. cotton, wool, gold etc. — we have created detailed material cards which provide a view of:

- **A material's typical production process**
- **Different subcategories of a material e.g. recycled, organic and conventional**
- **Why Change? A section on conventional materials and their impacts**
- **Recommended purchasing practices for that particular material**
- **Available certifications to look out for when purchasing the material**

We have also outlined some 'Common Definitions' covering terms such as mechanical recycling, and pre-consumer material, and 'How Certifications Work' in the Appendix.

HOW RECOMMENDATIONS RELATE TO FARFETCH CRITERIA FOR CONSCIOUS PRODUCTS

As mentioned above, 'Best' and 'Good' material classifications, and specific material sub-category recommendations, align directly with the the FARFETCH Group criteria for Conscious products.

To qualify as a Conscious product on farfetch.com or brownsfashion.com, a fashion product must meet one of the following criteria (the first criteria being the most relevant to this material sourcing guide):

1. MATERIAL COMPOSITION OR MATERIAL PRODUCTION PROCESS

a) The material composition or the material production process is independently recognised as being better environmentally, socially or from an animal welfare perspective (e.g. low-impact cellulosic materials like linen or TENCEL, recycled and upcycled materials, ECONYL, etc.)

b) The material composition or the material production process holds an independent certification relating to good environmental, social or animal welfare practice (e.g. GOTs-certified cotton, FSC-certified viscose, Responsible Wool Standard-certified wool etc.)

Note: A significant proportion is measured by looking at the outer of the product that must contain at least 50% of an eligible material. However, when it comes to certified materials, we apply the threshold identified by the specific certification requirement (e.g. 95%+ OCS, 70%+ GOTS, 20%+ GRS) or relevant industry standards (e.g. for recycled cotton, we accept products with a minimum of 20% of recycled materials due to intrinsic performance issues which prevent a higher use). This applies across all categories.

2. WHOLE PRODUCT CERTIFICATION

A finished product must hold an independent certification relating to good environmental, social or animal welfare practice (e.g. Fairtrade certified, PETA certified, etc.)

3. PRE-OWNED NATURE

A product is secondhand or vintage (pre-owned)

4. POSITIVE BRAND RATING ON GOOD ON YOU

A product comes from a brand that is Good On You approved. Being Good On You approved enables all products from a brand to qualify for the Conscious collection. The other criteria listed above are assessed on a product-by-product basis, so apply to specific products only from the broader brand's offering.

MAIN MATERIALS

CELLULOSE-DERIVED MATERIALS

FOSSIL FUEL-DERIVED MATERIALS

ANIMAL-DERIVED MATERIALS AND ALTERNATIVES

MINERAL-DERIVED MATERIALS

CELLULOSE-DERIVED MATERIALS

CELLULOSE-DERIVED MATERIALS CLASSIFICATION

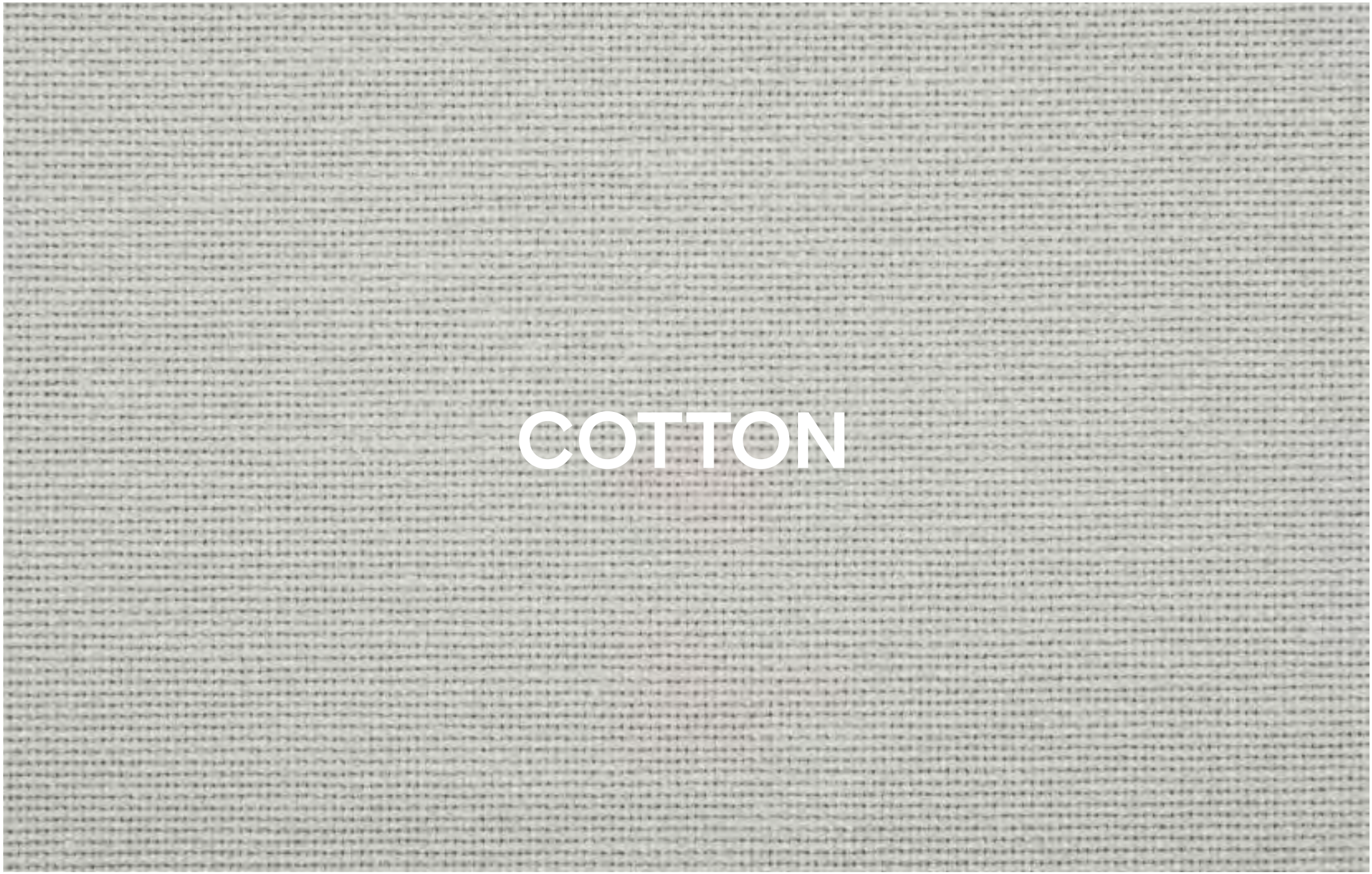
Material sustainability characteristics is a complex area with many environmental and social factors to consider. In this guide we have classified and recommended the use of materials that:

- **Promote circular practices** (e.g. recycled, upcycled, biodegradable materials)
- **Promote organic and regenerative practices** (e.g. organic materials or those derived from regenerative agriculture)
- **Promote better animal welfare** (e.g. vegan, responsible materials)
- **Promote lower environmental impact and fairer production processes** (e.g. recognised low-impact materials, certified or alternative leathers, forest-friendly materials, fairmined gold)
- **Are based on third-party certified sources**, over non-certified ones

The classification is in order of preference, ranging from 'Best' to 'Discouraged'. Any material we have classified 'Best' or 'Good' aligns with our FARFETCH Conscious Criteria — allowing products to qualify for the Conscious collections on farfetch.com and brownsfashion.com.
Please note: A minimum of 50% or more of more sustainable ('Best' or 'Good') material is required in the outer of the finished garment for the product to be considered a Conscious product in line with the FARFETCH Group Conscious Criteria. The one exception is for recycled cotton, where we accept a minimum threshold of 20% due to intrinsic performance issues which prevent a higher use.

BEST	GOOD	DISCOURAGED	BANNED
USING THESE MATERIALS ENABLE PRODUCTS TO QUALIFY UNDER THE FARFETCH CONSCIOUS CRITERIA.		THESE MATERIALS DON'T HELP A PRODUCT QUALIFY AS CONSCIOUS, BUT CAN BE USED.	THESE MATERIALS SHOULD NOT BE USED
RECYCLED COTTON	BCI COTTON	CONVENTIONAL COTTON/DENIM*	
REGENERATIVE COTTON	CMIA COTTON	CONVENTIONAL RAYON/VISCOSE	
ORGANIC COTTON/DENIM	CONVENTIONAL HEMP	MODAL	
ECOVERO	CONVENTIONAL LINEN	TRIACETATE	
LENZING MONOCEL	BEMBERG CUPRO	ACETATE	
TENCEL LYOCELL	FSC CERTIFIED VISCOSE		
ORGANIC LINEN	FLAX		
ORGANIC HEMP			

*NGG does not work with any denim suppliers that use sandblasting in production (see the Denim section for detail).


COTTON

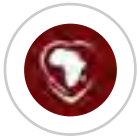
COTTON

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Organic Content Standard (OCS)

Global Organic Textile Standard (GOTS)

Global Recycled Standard (GRS)



Cotton Made in Africa (CMiA)

Better Cotton (BCI)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

We recognise that these are still valid and useful certifications for companies or products to hold, but based on independent advice we do not include them within our 'FARFETCH Conscious Criteria', or within the classification of 'Best' or 'Good' materials.

Recycled Claim Standard (RCS)

Cotton is a natural seed fiber derived from the cotton plant. It is the second most common fiber used today after polyester, making **up 26-35% of the textile market**.

RECOMMENDED PRACTICES

We recommend sourcing independently certified cotton (over conventional), with a preference for:

1. Recycled
2. Organic
3. Other certified sources

RECYCLED COTTON — BEST

Recycled cotton can be defined as used cotton fabric that has been converted back into cotton fiber to be reused in textile products. It is often referred to as regenerated or reclaimed cotton and includes recycled raw material, as well as used, reconditioned, and re-manufactured components. It primarily comes from two sources:

PRE- CONSUMER

Cotton yarn and fabric by-products. This is the most common recycled cotton offered by textile suppliers.

POST-CONSUMER

Created using recycled garments, upholstery, towels and household items.

ORGANIC COTTON — BEST

Organic farming maintains and replenishes soil fertility with techniques like intercropping, crop rotation and the use of compostable organic matter. Therefore, organic cotton is produced without the use of toxic, persistent and carcinogenic pesticides or synthetic fertilizers. Organic cotton agriculture relies on slightly larger land use but aims to conserve water and use rainwater while also prohibiting genetically modified organisms in its seeds. It also creates healthy soils, capable of soaking up and holding more water in times of drought.

OTHER CERTIFIED COTTON — GOOD

We understand it can be challenging to source only recycled and organic cotton, as we are facing a global increase in demand. Other third-party verified certifications such as Cotton Made in Africa (CMiA) and the Better Cotton Initiative (BCI) are better options that conventional cotton for the following reasons:

- Cotton Made in Africa (CMiA): promotes smallholder farms and dignified labor conditions and is committed to protecting soil, water, biodiversity, the climate and the environment
- Better Cotton Initiative (BCI) is traceable to farm/field level and promotes better working conditions for farmworkers

COTTON

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Organic Content Standard (OCS)

Global Organic Textile Standard (GOTS)

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WHY CHANGE?: CONVENTIONAL COTTON AND ITS IMPACTS

Conventional cotton requires large amounts of water to grow. This comes from either rainfall or irrigation. There are significant potential environmental and social impacts caused by the large-scale intensive production of conventional cotton:

WATER:
Cotton is largely grown in semi-arid, water-scarce areas. This makes the large amount of water it requires to grow potentially problematic, particularly when it's dependent on irrigation.

POLLUTING CHEMICALS:
Cotton production accounts for 16% of global insecticide use, more than any other single crop [4]. Pesticides, insecticides and chemicals are big contributors to groundwater and soil contamination [5].

LAND USE AND BIODIVERSITY:
Cotton production uses 2.5% of the world's arable land [6], usually applying monoculture techniques that can deplete nutrients in soil and can lead to synthetic fertilizer dependency [7].

SOCIAL RISKS:
Cotton production supports the livelihoods of around 350 million people [8]. Social challenges at the farm level are known to include poor working conditions, child and forced labor, gender inequality, and an unfavorable global trade structure that leaves many cotton farmers in, or at risk of, poverty.

DENIM

DENIM

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® MADE IN GREEN

OEKO-TEX® STANDARD 100

Organic Content Standard (OCS)

Global Recycled Standard (GRS)

Global Organic Textile Standard (GOTS)

Cotton Made in Africa (CMiA)

Better Cotton (BCI)

Denim originated in 1873 as a workwear fabric [9]. The word originates from the French term 'serge de Nimes', meaning a 'strong fabric from Nimes' [10]. The USA was once the primary manufacturer of denim, but the country's last major mill closed in 2017 [11].

RECOMMENDED PRACTICES

Denim is produced using cotton, so it follows the benchmark and recommendations as listed in the Cotton section. For clarity, we favor:

1. Recycled cotton — with a minimum of 20% of recycled cotton in the outer to qualify as Conscious
2. Organic Cotton — with a minimum of 50% of organic cotton in the outer to qualify as Conscious

Denim manufacturing has been connected with some specific health and environmental issues (see below) so, in addition to the above, we favor working with suppliers that:

- Can prove or guarantee worker and community welfare
- Employ smart and safe chemistry aligned to international standards (reducing the use of harsh chemicals) and recycle all waste-water coming from their wet processes (reducing water consumption)

DENIM

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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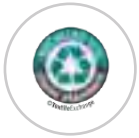

Recycled Claim Standard (RCS)

GreenScreen Certified™ Standard for Textile Chemicals

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WHY CHANGE?: CONVENTIONAL DENIM AND ITS IMPACTS

Denim is made from cotton, meaning all impacts outlined in the Cotton section apply to denim too. In addition, two issues are relevant:

POLLUTING CHEMICALS IN DYES:
To obtain the characteristic indigo tone, synthetic dyes are used which can contain harmful chemicals. These chemicals can be harmful to the environment and a risk to worker health and safety (as some are carcinogenic).

HEALTH RISKS FROM SANDBLASTING:
The 'distressed' denim look is commonly obtained through a technique called sandblasting. This process can cause serious health risks for workers. NGG does not work with any suppliers that use this practice.

HEMP, LINEN, VISCOSE, ACETATE, TRIACETATE AND MODAL

HEMP, LINEN, VISCOSE, ACETATE, TRIACETATE AND MODAL

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® MADE IN GREEN

OEKO-TEX® STANDARD 100

Organic Content Standard (OCS)

Global Organic Textile Standard (GOTS)

Forest Stewardship Council (FSC)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Recycled Claim Standard (RCS)

Programme for the Endorsement of Forest Certification (PEFC)

GreenScreen Certified™ Standard for Textile Chemicals

Natural cellulosic fibers such as hemp and linen have been challenged by regenerated cellulose fibers in recent years. Regenerated cellulosics are materials derived from the cellulose found in wood pulp. The most common and also the first manufactured semi-synthetic fiber is viscose (also known as rayon) which is made from wood pulp or cotton linter and has a silk-like texture. [12]

RECOMMENDED PRACTICES

We favor natural cellulosic fibers such as linen and hemp with a preference for organic-certified fibers.

LINEN — GOOD, ORGANIC LINEN - BEST

Linen fabric is produced from flax; a plant fiber that can grow with little attention or fertilizers. Flax is mainly cultivated in regions with sufficient rainfall, e.g. northwest Europe, eliminating the need for irrigation and contributing to a minimal water impact, meaning even standard linen is a lower-impact choice.

HEMP — GOOD, ORGANIC HEMP - BEST

Hemp is considered a preferred fiber, with organic hemp being one of the most sustainable known fibers. Hemp has a much higher yield, requires less land and water than conventional cotton, and uses no harmful pesticides or chemicals. In addition, every part of the plant can be utilized for different purposes, making this a zero-waste crop.

*Even though we consider conventional hemp and linen 'Good' it is important to note that both materials may still have potential negative environmental and social impacts if the production process is not carried out correctly:

- The retting process, where natural fibers are separated from the stem of the hemp/flax plant, utilizes harmful chemicals and can cause damage in the disposal of wastewater if not properly treated.
- The production of both fibers requires a lot of physical labor and should be closely monitored to ensure good, fair and safe labor practices.

For these reasons, we consider organic hemp and linen as 'Best'.

ACETATE AND TRIACETATE — DISCOURAGED

Even if acetates or cellulose acetates are made from natural and renewable material, they are considered a semi-synthetic or chemical fiber textile. Production involves toxic chemicals [13] and it is often associated with deforestation[14]. In addition, acetate fiber fabrication requires a lot of energy and water [15].

MODAL — DISCOURAGED

As with viscose, sourcing wood to turn into modal risks the destruction of native forest. During the production of rayon fabrics, concentrations of caustic soda are used to dissolve and purify the cellulose. This step, called 'xanthation', uses the infamous neurotoxin carbon disulphide which can then be introduced into the environment through the air or contaminated water. Not only does this harm any animals who come in contact with it, but it's also devastating for the people who make the clothes, who can experience serious medical problems that range from liver damage to blindness or even death.

HEMP, LINEN, VISCOSE, ACETATE, TRIACETATE AND MODAL

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OEKO-TEX® STANDARD 100

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WHY CHANGE?: CONVENTIONAL VISCOSE, ACETATE, TRIACETATE AND MODAL DENIM AND THEIR IMPACTS

CONVENTIONAL VISCOSE — DISCOURAGED

Traditional viscose production depends on the use of solvents and typically requires significant water and energy consumption. Therefore, it is key to choose suppliers that implement greener technologies, use solvents that are not harmful to the environment, and recycle waste and water. Other environmental and social implications include:

CHEMICALS:
Viscose pulp production and the process of breaking it down into fiber often requires large quantities of potentially polluting, toxic chemicals.

LAND AND BIODIVERSITY:
The production of viscose has been linked to large scale deforestation. According to 'CanopyPlanet', more than 150 million trees are logged every year to produce cellulosic fabrics. Deforestation impacts the livelihoods, food security, safety, and cultural aspects of indigenous and local communities.

RISKS TO PRODUCTION WORKERS:
The use of chemicals in viscose production poses a number of risks to production workers. For example, carbon disulfide can potentially damage the nervous system of anyone exposed to it. In addition, sodium hydroxide, also known as lye, exposes workers to risks of chemical burns if they are not wearing protective equipment.

FOSSIL FUEL-DERIVED MATERIALS

FOSSIL FUEL-DERIVED MATERIALS CLASSIFICATION

Material sustainability characteristics is a complex area with many environmental and social factors to consider. In this guide we have classified and recommended the use of materials that:

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- **Promote organic and regenerative practices** (e.g. organic materials or those derived from regenerative agriculture)
- **Promote better animal welfare** (e.g. vegan, responsible materials)
- **Promote lower environmental impact and fairer production processes** (e.g. recognised low-impact materials, certified or alternative leathers, forest-friendly materials, fairmined gold)
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Please note: A minimum of 50% or more of more sustainable ('Best' or 'Good') material is required in the outer of the finished garment for the product to be considered a Conscious product in line with the FARFETCH Group Conscious Criteria.

BEST	GOOD	DISCOURAGED	BANNED
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RECYCLED POLYESTER	BIO-BASED POLYESTER*	VIRGIN POLYESTER	
RECYCLED NYLON	BIO-BASED NYLON*	VIRGIN NYLON	
RECYCLED PLASTIC	BIODEGRADABLE NYLON*	POLYURETHANE	
	BIO-SYNTHETICS*	ACRYLIC	
	BIO TPU*	TRIACETATE	
	BIO EVA*	TPU	
		EVA	
		PVC**	

*We do not currently accept ALL bio-based or biodegradable materials under our criteria as many of these alternatives require further industry analysis to prove they are environmentally beneficial. We do appreciate that these materials are likely better than virgin equivalents and show significant promise. To qualify, we require that suppliers show proof of environmental benefits through 'Life Cycle Analysis' or some form of independent certification.
**PVC is not used in any products produced by NGG and the FARFETCH group strongly discourages its use.


POLYESTER

POLYESTER

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® MADE IN GREEN

OEKO-TEX® STANDARD 100

Global Recycled Standard (GRS)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

Polyester is widely used across the globe, accounting for half of the overall fiber market [17]. Some of the qualities that have made polyester so successful are its durability, resistance to wrinkles, quick drying time and its lightweight properties. The most common form of polyester used in clothing is polyethylene terephthalate (PET).

RECOMMENDED PRACTICES

When sourcing polyester we have a preference for:
1. Recycled
2. Bio-based (when a thorough LCA is provided

RECYCLED POLYESTER — BEST

Recycled polyester is mainly made from PET plastic bottles and can also be made from other post-consumer plastics such as ocean waste, discarded polyester textiles, or from pre-consumer processing residues such as fabric scraps. Mechanically recycled polyester produces an estimated 70% fewer GHG emissions than the production of virgin polyester [18]. However, it's worth noting that recycled polyester is still more energy intensive than most organically produced natural fibers [20]. Recycled polyester can also shed micro-fibres during washing that end up polluting water systems, so we recommend consumers use a microfibre-catching washing bag.

BIO-BASED POLYESTER

Bio-based polyester is an emerging material with the potential to reduce GHG emissions if sourced and managed responsibly. Bio-polyester or bio-synthetics are made from renewable sources such as biowaste or purpose-grown crops. As such they have the potential to absorb CO2 during their growing phase.

*We do not currently accept bio-based polyester under our criteria as we believe further industry analysis is needed.

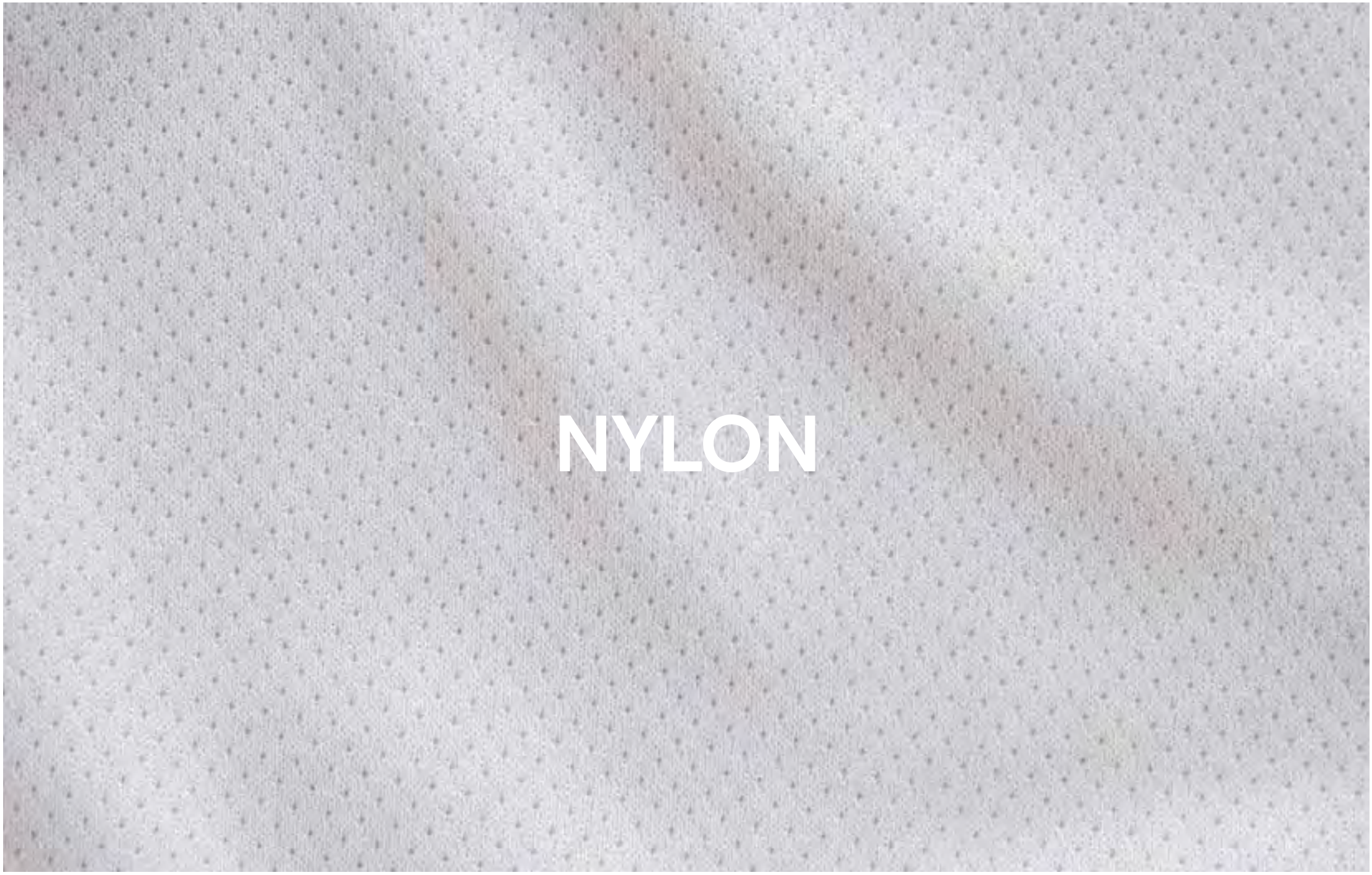
WHY CHANGE?: CONVENTIONAL POLYESTER AND ITS IMPACTS

Conventional polyester does require fewer chemicals in the dyeing process compared to, for example, cotton. However, it still has significant negative environmental impacts:

MICROFIBRES:
Polyester sheds microplastics when washed and used. These end up in water bodies, as well as land and air, where they may be ingested by marine life, animals and humans. Given their size and composition, microplastics may attract harmful substances floating in their surroundings, increasing their toxicity.

POLLUTING CHEMICALS:
The commonly used catalyst in polyester production, antimony trioxide, can cause harm to a range of aquatic organisms if discharged untreated and is a known carcinogen if inhaled by workers.

NON-RENEWABLE:
Polyester is derived from the fossil fuel petroleum, a fossil fuel, and is manufactured using an energy intensive, greenhouse gas-emitting process. It does not biodegrade and very little is recycled, so it will often end up in landfill at the end of its life.



NYLON

NYLON

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OEKO-TEX® MADE IN GREEN

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Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

Nylon is the first commercially lucrative synthetic thermoplastic polymer [21]. First produced by DuPont in 1935, it was, and still is, commonly used as a stretchy fabric for female hosiery and swimwear. During WW2, it was employed for military parachutes [22]. Nylon, also called polyamide, is derived from the fossil fuel petroleum. The two most common types of nylon are nylon 6 and nylon 6.6. Originally created as a thermoplastic substitute for silk, it is one of the strongest fibers and is very elastic. It is often blended with other fibers to improve its properties. When it comes to nylon, we favor recycled fibers.

RECOMMENDED PRACTICES

When sourcing Nylon we have a preference for:
1. Recycled
2. Bio-based (when a thorough LCA is provided

RECYCLED NYLON — BEST

Recycled polyamide can be produced from pre or post-consumer waste. While pre-consumer waste may be processed by scraps, post-consumer polyamide can be made from discarded fishing nets, carpets and other used textiles. The recycling process can be mechanical or chemical. Overall, recycling can help avoid using fossil fuel-based raw materials while reducing and repurposing waste material. According to Aquafil, an estimated 70,000 barrels of oil are saved per 10,000 tons of regenerated caprolactam which is used in the manufacturing of nylon [23].

BIO-BASED NYLON

The chemical industry has recently introduced bio-based synthetic fibers, such as bio-nylon. It has the potential to reduce GHG emissions contributing to decarbonization as it uses renewable feedstocks, vegetable oils, starches and sugars from biomass instead of petroleum. Independently verifiable sustainability standards for bio-based materials are emerging and will offer the industry much needed guidance on renewable feedstock sustainability. However, bio-based synthetic fibers do not solve the problems of the permanence of waste and microplastics since their bio-degradation times are similar to those of traditional synthetic fibers.

*We do not currently accept bio-based polyester under our criteria as we believe further industry analysis is needed.

NYLON

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® MADE IN GREEN

OEKO-TEX® STANDARD 100

Global Recycled Standard (GRS)

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WHY CHANGE?: CONVENTIONAL NYLON AND ITS IMPACTS

MICROFIBRES:
Nylon sheds microplastics when washed and used. These end up in water bodies, as well as land and air, where they may be ingested by marine life, animals and humans. Given their size and composition, microplastics may attract harmful substances floating in their surroundings, increasing their toxicity.

NON-RENEWABLE:
Nylon is made from non-renewable resources which release nitrous oxide, a strong greenhouse gas that depletes the ozone layer.

CIRCULARITY:
Even if nylon could be recycled using de/re-polymerization techniques, when blended with biodegradable fibers (such as cotton, cellulose fibers or wool) it loses its ability to biodegrade. This creates an additional challenge as blends cannot be separated by a mechanical fiber-recycling process.

LAND AND BIODIVERSITY:
Nylon is not biodegradable and therefore likely to be sent to a landfill at the end of its product life cycle.

OTHER PLASTICS

OTHER PLASTICS

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OEKO-TEX® MADE IN GREEN

OEKO-TEX® STANDARD 100

Global Recycled Standard (GRS)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

We recognise that these are still valid and useful certifications for companies or products to hold, but based on independent advice we do not include them within our 'FARFETCH Conscious Criteria', or within the classification of 'Best' or 'Good' materials.

Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

RECOMMENDED PRACTICES

When procuring plastics, it is important to consider durability and strength alongside the sustainability credentials of a fiber. While recycled versions are often preferred, extending a product's lifetime should similarly be prioritized (i.e. through using durable and strong fibers). Moreover, pure, single fiber textiles or yarns are often preferred over poly-blends as these are easier to recycle after use.

BIOSYNTHETICS OR BIOPLASTICS

Biosynthetics are plastics (usually PLA or PHA) wholly or partially made from renewable materials and not from fossil fuels. While these emerging fibers are gaining traction due to being from a renewable source, their use needs to be considered carefully as they may cause strain on other parts of the ecosystem through deforestation or land use, for example. When chosen, it is important to source biosynthetic fibers that are sustainably harvested and that do not contain GMOs. Some examples of biosynthetics in the market include Anellotech, Biofront from Teijin, Bolt Threads, Ecodear® from Toray and EVO® from Fulgar.

TPU — DISCOURAGED, RECYCLED TPU — GOOD

Thermoplastic polyurethane elastomer (TPU) is a polyurethane based rubber that has better wear-resistance and higher elasticity than polyurethane PVC. This material is commonly used for its waterproof and moisture permeable functions, and is technically 100% recyclable. It is considered an alternative to PVC textiles as it can biodegrade in three to five years and has non-toxic properties. Still, TPU is produced from non-renewable resources and, as in the case of all other synthetic materials, accounts for high emissions of greenhouse gasses. For this reason, we suggest procuring recycled TPU or Bio TPU which partly consists of renewable-sourced materials.

EVA — DISCOURAGED

Other substitutes for PVC include some non-chlorinated vinyls such as ethylene-vinyl acetate (EVA) which is primarily used for athletic shoes. However, the absence of chlorine in EVA does not eliminate all concerns as toxic chemicals can still be found in the lifecycle of any petrochemical product. Products using EVA often contain multi-material compositions, so it tends to be more difficult to recycle than other synthetics. Additionally, it is difficult to produce recycled EVA with the same desirable properties as its original version, so it's likely that bio-based EVA offers the best potential for impact reduction.

OTHER PLASTICS

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® MADE IN GREEN

OEKO-TEX® STANDARD 100

Global Recycled Standard (GRS)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

POLYURETHANE — DISCOURAGED, RECYCLED POLYURETHANE — GOOD

Polyurethane, or PU, is typically made from a polyester or a polyblend material that has been heat-laminated to a polyurethane layer. The polyester or polyblend coating enhances the characteristics of the fabric by giving an appearance of leather, and resistance against wind and water. We generally discourage the use of polyurethane, but if unavoidable, we advise recycled polyurethane instead of virgin material.

ACRYLIC — DISCOURAGED

Acrylic fabric is based on a synthetic polymer known as acrylonitrile which is derived from fossil fuels and synthesized to acrylic resin pellets. Even though acrylic offers wool-like properties, its production is energy and chemical-intensive. It is also important to consider that wool is mostly blended with acrylic fibers to lower the cost, making it more difficult to recover both materials when recycling it. We recommend not to use acrylic or favor only recycled alternatives.

PVC — DISCOURAGED

PVC, or polyvinyl chloride, is a fossil fuel-based product that is heavily processed from start to finish. As all synthetic materials, it requires high amounts of energy and uses harmful substances such as phthalates in the production process.
NGG does not use PVC in any of its collections, and the FARFETCH group strongly discourages its use.

WHY CHANGE?: CONVENTIONAL PLASTICS AND THEIR IMPACT

MICROFIBRES:
When used and washed, plastic-based textiles can release microplastics. If these are not captured, microplastics pollute oceans and threaten life underwater.

NON-RENEWABLE SOURCES:
Fossil fuel-based materials such as polyester and polyurethane use large quantities of non-renewable resources and fossil energy to produce.

RENEWABLE SOURCES:
Textiles with fibres from renewable sources can cause strains on the ecosystem through deforestation and carbon emission concerns.

TOXIC, POLLUTING CHEMICALS:
The chemicals needed to produce many fossil fuel-based plastics like acrylics and polyester can present health issues, including skin rashes, headaches, kidney problems and breathing difficulties, or be considered carcinogenic.

CIRCULARITY:
When plastic-based fibres are blended with other synthetic or natural fibres the circularity potential decreases as they are difficult to separate. Separability of fibres is a concern applicable to all blended fibres.

ANIMAL DERIVED MATERIALS

ANIMAL-DERIVED MATERIALS AND ALTERNATIVES CLASSIFICATION

Material sustainability characteristics is a complex area with many environmental and social factors to consider. In this guide we have classified and recommended the use of materials that:

• **PROMOTE CIRCULAR PRACTICES**
(e.g. recycled, upcycled, biodegradable materials)

• **PROMOTE ORGANIC AND REGENERATIVE PRACTICES**
(e.g. organic materials, or those derived from regenerative agriculture)

• **PROMOTE BETTER ANIMAL WELFARE**
(e.g. vegan, responsible materials)

• **PROMOTE LOWER ENVIRONMENTAL IMPACT AND FAIRER PRODUCTION PROCESSES**
(e.g. recognised low-impact materials, certified or alternative leathers, forest-friendly materials, fairmined gold)

• **ARE BASED ON THIRD-PARTY CERTIFIED SOURCES** over non-certified ones.

The classification is in order of preference, ranging from 'Best' to 'Discouraged'. Any material we have classified 'Best' or 'Good' aligns with our FARFETCH Conscious Criteria — allowing products to qualify for the Conscious collections on farfetch.com and brownsfashion.com.
Please note: A minimum of 50% or more of more sustainable ('Best' or 'Good') material is required in the outer of the finished garment for the product to be considered a Conscious product in line with the FARFETCH Group Conscious Criteria.

For ALL animal derived materials, NGG has put in place a formal Animal Welfare Policy informed by the Five Freedoms: internationally recognised principles formalized by the Farm Animal Welfare Council. To ensure compliance the mandatory requirements of the Animal Welfare Policy, suppliers must:

• Provide verifiable information on the origin of all species of fiber supplied to determine whether species are present in **CITES** Appendices and **IUCN Red List** (and more broadly to allow us to understand the risks of animal exploitation and species extinction within our supply chain).

• Adhere to regulations and conventions in force in the areas in which they operate and source from, avoiding practices that lead to the suffering of the species in question.

• NGG requires all suppliers to provide verifiable information on the origin of the wool fibers supplied.

ANIMAL-DERIVED MATERIALS AND ALTERNATIVES CLASSIFICATION

BEST	GOOD	DISCOURAGED	BANNED
USING THESE MATERIALS ENABLE PRODUCTS TO QUALIFY UNDER THE FARFETCH CONSCIOUS CRITERIA.		THESE MATERIALS DON'T HELP A PRODUCT QUALIFY AS CONSCIOUS, BUT CAN BE USED.	THESE MATERIALS SHOULD NOT BE USED
RECYCLED/REGENERATED WOOL	CERTIFIED WOOL (RWS)	NON-TRACEABLE WOOL	ANGORA*
ORGANIC WOOL	RDS DOWN	VIRGIN WOOL	FUR*
RECYCLED DOWN	CERTIFIED CASHMERE (GSC)	DUCK DOWN	
RECYCLED LEATHER	CERTIFIED MOHAIR (RMS)	LEATHER	
RECYCLED/REGENERATED CASHMERE	CERTIFIED ALPACA (RAS)	VIRGIN CASHMERE	
RECYCLED/REGENERATED MOHAIR	ORGANIC SILK	VIRGIN MOHAIR	
RECYCLED/REGENERATED ALPACA	CERTIFIED LEATHER	VIRGIN ALPACA	
MIRUM	APPLESKIN™	SILK	
RECYCLED SILK	DESSERTO®	PRECIOUS SKINS	
	MUSKIN	MULESED WOOL**	
	MYLO™	NON RDS DOWN	
	ZI™ BIO LEATHER	VIRGIN POLYESTER	
	VEGEA	TPU	
	PIÑATEX®	PVC	
	ORGANIC SILK	PU	
	PEACE SILK	CONVENTIONAL SILK	
		WILD SILK	

*FARFETCH group does not list or produce any products containing fur or angora fur. Please see the full list of banned furs available here.
**Wool from animals subjected to mulesing should not be used in any products produced by NGG. The FARFETCH group strongly discourages its use.
***Leather derived from cattle bred on land illegally deforested from Amazonian areas, mainly in reference to the Brazilian and Paraguayan Amazon forest, should not be used in any products produced by NGG. The FARFETCH group strongly discourages its use.

WOOL

WOOL

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Organic Content Standard (OCS)

Global Recycled Standard (GRS)

Global Organic Textile Standard (GOTS)

Responsible Wool Standard (RWS)

The global production volume of wool totals approximately one million tons each year, making wool the most used animal-based fiber. Overall production of wool has been declining, with the ratio of sustainably sourced wool certifications increasing. [25]

PRODUCTION & TYPES OF WOOL

Wool fibers are obtained by sheep shearing, usually occurring in spring or early summer. Once the fleece is collected, it is treated with chemicals to remove 'wool greases' and pests, often followed by bleaching to produce white wool. The quality of wool is determined by wool classing which looks at a variety of factors including the fiber's diameter, breed, amount of crimp, colour and staple strength. Diameter is the most important characteristic when it comes to quality and price.

RECOMMENDED PRACTICES

MANDATORY REQUIREMENTS FROM THE NGG ANIMAL WELFARE POLICY!

We recommend sourcing mulesed-free , independently certified wool with a preference for:

1. Recycled
2. Organic

RECYCLED WOOL — BEST

Recycled wool largely consists of used wool that is sorted, cleaned, shredded and reduced to form woolen fibers. These fibers are then re-dyed and/or spun into new yarn. While virgin wool may be of higher quality, using recycled wool has significantly lower environmental impacts.

Moreover, we highly recommend procuring recycled wool fibers due to the following advantages:

- Lower carbon footprint and resource consumption energy use: GHG emissions and fresh water consumption are three times lower for a recycled wool-blend jumper than for a pure virgin wool jumper [26]. Recycled wool is 24 times less intensive than virgin wool in regard to CO2 emissions and requires 4 times less cumulative energy than virgin wool.
- Less waste: An estimated 16 million tons of used textile waste is generated in the US alone. Discarded clothes that end up in landfill (often as result of fast fashion) negatively impact the environment, which can be reduced using recycled wool [27].
- Less water use and depletion: Recycled wool uses less water as it bypasses the initial washing phase required for virgin wool and requires less water (if any) in the dyeing process.

WOOL

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

We recognise that these are still valid and useful certifications for companies or products to hold, but based on independent advice we do not include them within our 'FARFETCH Conscious Criteria', or within the classification of 'Best' or 'Good' materials.

Content Claim Standard (CCS)

UK Animal Welfare Committee

Recycled Claim Standard (RCS)

International Wool Textile Organization

The global production volume of wool totals approximately one million tons each year, making wool the most used animal-based fiber. Overall production of wool has been declining, with the ratio of sustainably sourced wool certifications increasing. [25]

ORGANIC WOOL — BEST

Organic wool refers to fibers which originate from farms that both support animal welfare and that aim to minimize environmental impacts. Animals are not subjected to antibiotics or pesticides and instead a preventative approach to diseases is taken. Sheep and lamb graze freely on organic land and are fed natural feed.

WHY CHANGE?: CONVENTIONAL WOOL AND ITS IMPACTS

Wool is natural, renewable, biodegradable and has durable fibers. Virgin wool refers to wool that has never been used before. It is usually of higher quality, softer and stronger than recycled wool given its fibers have not previously been shredded or dyed. However, there are several concerns associated with conventional wool:

POLLUTING CHEMICALS:
The treatment to process raw wool generally involves chemicals and the intensive use of energy. In addition, for large scale sheep farming, land is cleared, and trees are cut down for animal grazing, leading to soil erosion and biodiversity loss. Inorganic wool farming uses a toxic liquid called sheep 'dip' that rids the sheep from parasites. It is difficult to dispose of safely, so it can lead to groundwater pollution, land degradation and eutrophication.

ANIMAL WELFARE:
Mulesing is a common treatment method for Flystrikes — a painful and sometimes fatal condition caused by flies laying their eggs on another animal. However, the practice of mulesing itself — cutting sheeps skin most-often without painkillers — is itself painful and can constitute animal cruelty.

MOHAIR, ALPACA & CASHMERE

MOHAIR, ALPACA & CASHMERE

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Organic Content Standard (OCS)

Global Recycled Standard (GRS)

Global Organic Textile Standard (GOTS)

Sustainable Fiber Alliance Cashmere Standard

The Good Cashmere Standard (GCS)

Responsible Mohair Standard (RMS)

Responsible Alpaca Standard (RAS)

Cashmere, alpaca and mohair wools are characterized by their long lasting and durable features, as well as being natural and compostable.

Cashmere fibers come from the cashmere goat, and is a downy undercoat protecting the animal from harsh winter conditions. Approximately 60% of all cashmere produced now originates from China and 20% from Mongolia [31].
Mohair comes from Angora goats and roughly 50% of global mohair fiber production originates from South Africa [29]. Alpaca fibers come from alpacas, with most herds coming from their native Peru and a minority residing in Bolivia, Australia, the UK and US.

RECOMMENDED PRACTICES

MANDATORY REQUIREMENTS FROM THE NGG ANIMAL WELFARE POLICY!

We recommend certified recycled or regenerated cashmere, alpaca and mohair wool. Following this we favor wool from sources that certify good animal welfare standards.

RECYCLED CASHMERE/ALPACA/MOHAIR — BEST

Recycled alternatives to virgin cashmere, mohair and alpaca are available on the market and are strongly preferred as they avoid the production of new yarn. However, many garments produced with recycled fibers are blended with new cashmere/wool.

THE GOOD CASHMERE STANDARD (GCS) — GOOD

The Good Cashmere Standard promotes animal welfare in cashmere production and is based on the Five Freedoms; internationally recognised principles formalized by the Farm Animal Welfare Council. The GCS has over 100 criteria which set clear guidelines for nutrition, keeping and handling, shearing and health management of the animals. The standard also supports biodiversity and promotes fair working conditions for farmers, making it the most conscious option if sourcing virgin cashmere.

THE RESPONSIBLE ALPACA STANDARD (RAS) AND RESPONSIBLE MOHAIR STANDARD (RMS) — GOOD

The RAS and RMS both promote positive animal welfare standards, aligning to the Five Freedoms. They also ensure that the wool is coming from farms that promote land heath and ensure a strong chain of custody for certified materials as they move through the supply chain.

MOHAIR, ALPACA & CASHMERE

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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UK Animal Welfare Committee

Content Claim Standard (CCS)

Recycled Claim Standard (RCS)

Cashmere, alpaca and mohair wools are characterized by their long lasting and durable features, as well as being natural and compostable.

WHY CHANGE?: CONVENTIONAL CASHMERE, MOHAIR, ALPACA AND THEIR IMPACTS

CONVENTIONAL CASHMERE, MOHAIR AND ALPACA — DISCOURAGED

ANIMAL WELFARE:
With cashmere, four goats need to be combed for a single sweater. Significant animal welfare concerns arise if this is not done gently or if a metal comb is used. In Iran, Afghanistan, New Zealand and Australia, cashmere goats are shorn, and unlike sheep, goats have little body fat and therefore suffer from poor insulation because of shearing.

BIODIVERSITY:
Some pastoralists in Mongolia also expand their goat herds to increase profits, putting pressure on endangered wildlife species living within the same ecosystem.

CLIMATE CHANGE:
The breeding of ruminant animals that produce methane is responsible for high volumes of CO2e production, contributing to climate change.

LAND AND SOIL:
Alpacas are found to be easy on the land and promote a more sustainable habitat, so alpaca wool is favored versus cashmere and mohair production which has been criticized for being highly damaging. Goats graze close to plant roots and their sharp hooves damage topsoil and its structure. As herds increase in response to greater demand for wool, the problem perpetuates. According to the United Nations Development Program, 90% of Mongolia, where a lot of cashmere originates, is fragile, dry land and under increasing threat of desertification [32].

DOWN & FEATHERS

DOWN & FEATHERS

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Organic Content Standard (OCS)

Global Recycled Standard (GRS)

Global Organic Textile Standard (GOTS)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Red List of Threatened Species

UK Animal Welfare Committee

Feathers and down used in fashion primarily originate from geese and ducks. Down is a soft layer of feathers closest to the birds' skin. It is highly valued given its lack of quills and soft properties. The overall down and feather market is fragmented with a large number of small and medium producers. Approximately 85 to 90% of down originates from duck feathers and the rest is from geese [33]. China dominates the market for down production, constituting 60% of all down produced [34].

RECOMMENDED PRACTICES

MANDATORY REQUIREMENTS FROM THE NGG ANIMAL WELFARE POLICY!

We recommend sourcing independently certified feathers and down, with a preference for recycled and then other animal welfare-certified sources. See below.
Most issues associated with feathers are animal welfare related, so transparency across the supply chain is extremely important in order to ensure the correct treatment of all species involved. Polyester fiber is a frequently used alternative to feather-based insulation or padding in clothing. However, Life Cycle Assessment data has shown virgin down to be superior environmentally for a number of indicators — critically that it has 85% to 97% lower impact in terms of toxicity, ecosystem impact and climate change impact [37].

RECYCLED DOWN — BEST

To minimize the socio-environmental impact of the down and feather production, we highly recommend procuring recycled down. In 2020, recycled down accounted for 1% of the global down production volume [36]. ReDown is one such company specialized in the recycling of down made from post-consumer products. Other companies include Navarpluma, Downlite and Rohde.

RESPONSIBLE DOWN — GOOD

Under our criteria we accept the Responsible Down Standard (RDS) which ensures that down and feathers come from animals who have not been subjected to unnecessary harm.

DOWN & FEATHERS

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Responsible Down Standard (RDS)

Global Traceable Down Standard (Global TDS)

Washington Convention on International Trade in Endangered Species (CITES)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Content Claim Standard (CCS)

Recycled Claim Standard (RCS)

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WHY CHANGE?: CONVENTIONAL DOWN AND ITS IMPACTS

UNCERTIFIED FEATHERS AND DOWN — DISCOURAGED

ANIMAL WELFARE: is the issue commonly associated with feather and down products. Most feathers are a co-product of the meat industry and plucked during slaughter. However, some may be plucked repeatedly over the lifetime of the animal. The process of plucking the feathers is considered to be painful and distressing to the birds. As an example, growing geese can be plucked every six weeks [35], incentivizing this practice despite the welfare issues. In addition, some down may originate from other industries as a byproduct, such as the foie gras industry which has been scrutinized for unethical animal welfare conditions.

As outlined above, although moving to polyester as an alternative solves animal welfare issues, it potentially increases environmental and human health impacts.


LEATHER

LEATHER

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® LEATHER STANDARD

Global Recycled Standard (GRS)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

Leather has been around for thousands of years, traced back as far as the Stone Age. Approximately two thirds of all leather produced originates from cattle hides [40]. In 2020, China was the largest producer of cattle hides, accounting for 17% of the global market [41].
Other types of hides originate from sheep, goats and buffalo.

To produce leather, once an animal hide is removed, it is stored and dehydrated before being sent to a tannery. Hides are then soaked to remove dirt, limed to remove hair (involving various chemicals such as calcium oxide), de-limed, degreased and tanned. Tanning preserves the hide and stops decomposition. There are a variety of tanning methods, the most common of which involves chromium. Finally, the leather is dyed and finished.

RECOMMENDED PRACTICES

MANDATORY REQUIREMENTS FROM THE NGG ANIMAL WELFARE POLICY!

We recommend using recycled leather where possible, and otherwise favor certifications such as the Leather Working Group (LWG) and Institute of Quality Certification for the Leather Sector (ICEC) that ensure traceability and good standards in production. NGG does not use leather derived from cattle bred on land illegally deforested in Amazonian areas, mainly in reference to the Brazilian and Paraguayan Amazon forest.

CERTIFIED LEATHER — GOOD

Certified leather such as the Leather Working Group (LWG) is favored as a more sustainable choice than virgin leather. The LWG conducts audits of leather tanneries and assesses leather manufacturers on: water and energy usage, solid waste and effluent management, air and noise emissions, traceability, health and safety, chemical management, restricted substances, and compliance and chromium VI (CrVI) management [66], ensuring certified tanneries are upholding best practice in these areas.

LEATHER

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® LEATHER STANDARD

Global Recycled Standard (GRS)

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

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Other types of hides originate from sheep, goats and buffalo.

WHY CHANGE?: CONVENTIONAL LEATHER AND ITS IMPACTS

CONVENTIONAL LEATHER — DISCOURAGED

Leather production can have serious negative environmental and social impacts, especially when it comes to cattle rearing. Leather can be considered a co or by-product of the meat industry. Some of the major impacts include:

ECOSYSTEM LOSS OR DAMAGE:
This comes from both direct and indirect farm management. Directly, there has been significant conversion of sometimes rich and biodiverse natural habitats into pastures for cattle. Indirectly, animal food coming from unsustainable agricultural sources has an impact beyond the immediate area.

CLIMATE CHANGE:
The breeding of ruminant animals who produce methane is responsible for high volumes of CO2e production, contributing to climate change.

POLLUTING CHEMICALS:
Tanning requires the use of chemicals to bond the protein chains within the animal hide to ensure durability and prevent damage from mold and bacteria. The tanning stage is considered the most significant potential cause of local pollution, where unused chemicals are disposed of in wastewater through which they enter the local environment. Chemicals like Chromium are extremely toxic, causing high levels of eutrophication.

HUMAN HEALTH RISK:
In the US and Europe, strict regulations exist around the use of chemicals like chromium that is also a carcinogen. However, in other parts of the world chemical use is less regulated and workers are at risk of severe health effects if exposed.

LEATHER ALTERNATIVES (ALTERNATIVES TO ANIMAL DERIVED)

LEATHER ALTERNATIVES (ALTERNATIVES TO ANIMAL DERIVED)

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Global Recycled Standard (GRS)

Cradle to Cradle Certified®

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

V-Label

The alternative leather industry is evolving rapidly, partly due to the environmental concerns surrounding conventional leather and an increase in vegetarianism and veganism. Given the alternative leather industry is in its infancy, new evidence may come to light that will change our view of 'Best', 'Good' and 'Discouraged' classifications. However, in general we wish to champion the innovations providing solutions with a lower environmental and, of course, animal impact.

BIO-BASED

The term 'bio-based' refers to materials or products wholly or partially derived from biomass, such as plants and vegetables. Some examples include Pinatex, Desserto and AppleSkin™.

BIO-FABRICATED — LAB GROWN

Bio-fabricated materials are produced by living cells and microorganisms such as bacteria, yeast and mycelium. Examples of bio-fabricated materials include Mylo, Zi™ Bio Leather and MuSkin.

COMING FROM WASTE

Coming from waste materials are derived from agricultural waste, which is then turned into textile resources through technological advancements. An example of coming from waste material is Mirum.

MIRUM — BEST

Mirum is certified 100% bio-based by the USDA. It is made from natural raw material from both virgin and upcycled agricultural side streams. It requires no tanning. It's plastic free, containing no PU, which is often used in alternative leathers. The company claims it is both biodegradable and recyclable, which likely makes it a more sustainable option than both conventional leather and most plastic-based leather alternatives.

MUSKIN — BEST

MuSkin is a 100% vegetable alternative to animal leather and it is made from a large parasitic fungus that grows in the wild on trees located in subtropical forests. It is 100% biodegradable.

APPLESKIN™ — GOOD

AppleSkin™ is made with apple skin and core waste generated by the food industry. The material is approximately 20 to 30% apple waste that is mixed with organic cotton and recycled PU, meaning it is not entirely bio-based. It is PETA-certified vegan. Despite having several sustainability credentials, it is not biodegradable or recyclable.

Zi BIO LEATHER — GOOD

Zi™ bio leather is made with lab-grown collagen completely without animal derivatives. It is mixed with bio-based polymers so it does contain some plastic, meaning it is not biodegradable or recyclable.

LEATHER ALTERNATIVES (ALTERNATIVES TO ANIMAL DERIVED)

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Global Recycled Standard (GRS)

Cradle to Cradle Certified®

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Recycled Claim Standard (RCS)

Content Claim Standard (CCS)

V-Label

The alternative leather industry is evolving rapidly, partly due to the environmental concerns surrounding conventional leather and an increase in vegetarianism and veganism. Given the alternative leather industry is in its infancy, new evidence may come to light that will change our view of 'Best', 'Good' and 'Discouraged' classifications. However, in general we wish to champion the innovations providing solutions with a lower environmental and, of course, animal impact.

PINATEX — GOOD

Pinatex is made from pineapple leaves, a part of the pineapple plant which is often disposed of as waste in the fruit industry. It does contain a water-based PU resin for the coating, making up 10% of the overall material composition, meaning it is not 100% biodegradable and not recyclable.

MYLO — GOOD

Mylo is made from mycelium, the root-like system of fungi. However it does contain a PU coating which means it is not recyclable or biodegradable.

DESSERTO — GOOD

Desserto uses cacti as the raw material input. The company uses organic farming practices and the cacti are USDA certified. Cacti are a natural carbon sink and they also do not require water, so the raising of cacti has a very low footprint. A PU coating is still used and some of this is made from bio-based sources. Nonetheless, it is neither biodegradable nor recyclable.

VEGAN LEATHER

As outlined in our Conscious criteria, we do not automatically consider leather alternatives to be vegan. In order to classify a product as vegan, we require the product or brand to be PETA certified.

WHY CHANGE?: PLASTIC-BASED LEATHER ALTERNATIVES AND THEIR IMPACTS

Unfortunately, the most common source of faux leathers come from synthetic materials such as polyvinyl chloride (PVC) or polyurethane (PU). Each of these are forms of petroleum-based plastics which we strongly discourage for the following reasons:

WASTE AND POLLUTION:
Plastic-based faux leather is not biodegradable and may cause high levels of pollution when discarded.

CLIMATE CHANGE:
Plastic-based leathers are fossil fuel based and lead to high emissions of carbon.

TOXIC:
Many toxic chemicals may be used in the manufacturing of plastic-based synthetic alternatives to leather which may be both harmful to humans as well as the environment.

See the plastic section for more impacts.

PRECIOUS SKINS

PRECIOUS SKINS

EXAMPLES OF CERTIFICATIONS WE ACCEPT

OEKO-TEX® LEATHER STANDARD

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

We recognise that these are still valid and useful certifications for companies or products to hold, but based on independent advice we do not include them within our 'FARFETCH Conscious Criteria', or within the classification of 'Best' or 'Good' materials.

Content Claim Standard (CCS)

Like cow leather, the hides and skins of more exotic animals such as crocodiles, lizards, snakes and ostriches have been used by the fashion industry for many decades. They are often used for accessories such as handbags, belts and footwear. In recent years, the use of precious skins has received media attention based on questions around animal welfare, conservation and the risk of wildlife poaching. [43] [44]

RECOMMENDED PRACTICES

MANDATORY REQUIREMENTS FROM THE NGG ANIMAL WELFARE POLICY!

The FARFETCH group does not allow the submission of exotic skins unless permitted according to CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora) and IUCN (International Union for Conservation of Nature). For animal welfare reasons and conservation concerns, it is particularly important for designers to consider the type and traceability of the hide used. [43] [44]

WHY CHANGE?: PRECIOUS SKINS AND THEIR IMPACTS

The social impacts related to leather tanneries also apply to those types of precious skins undergoing tanning processes, such as those of crocodiles. Please refer to the leather section for more details of these impacts. However, certain environmental and animal welfare concerns are specific to the use of precious skins:

ANIMAL WELFARE:
Issues occur associated with the illegal trafficking and poaching of wildlife, as well as poor standards on farms designed to breed animals such as crocodiles.


SILK

SILK

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Organic Content Standard (OCS)

Global Organic Textile Standard (GOTS)

Global Recycled Standard (GRS)

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Recycled Claim Standard (RCS)

Silk is a natural protein fiber originating from the cocoons of moth larvae. While silk production accounts for less than 0.2% of the global fiber market today, it is a multi-billion-dollar industry and has long been considered a luxury fiber [45]. Silk production is believed to be over 8,500 years old and was first discovered in China [46].

The production of silk, referred to as sericulture, involves the raising and farming of silkworms. The most widely used species for commercial silk production is Bombyx Mori which can lay between 200 and 300 silkworm eggs over a few summer days. Once fully grown, the silkworms start to spin a cocoon of silk around themselves until they are fully encased. These cocoons are then harvested and soaked in boiling hot water to kill the chrysalises. The cocoon fibers are then washed, dried and twisted into yarns.

RECOMMENDED PRACTICES

MANDATORY REQUIREMENTS FROM THE NGG ANIMAL WELFARE POLICY!

RECYCLED SILK — BEST

Recycled silk is favored because it reduces waste and requires fewer resources to be used. It also avoids the issues associated with producing virgin silk.

ORGANIC SILK — GOOD

Organic silk is produced without the use of chemicals or pesticides meaning it has a lesser environmental impact. It does, however, still have some animal welfare concerns as the silk worms are often killed before they leave their cocoons.

WILD SILK — DISCOURAGED

Wild silk is cultivated from moths living in the wild, some of which are naturally colored and do not require chemical dyeing. Scientists are researching ways in which to produce these naturally colored silks in commercial production to reduce the need for chemical dyes.

WHY CHANGE?: CONVENTIONAL SILK AND ITS IMPACTS

WATER:
Manure-based fertilizers may lead to an overload of nutrients seeping into water bodies, leading to harmful algae growth and biodiversity loss. Moreover, large volumes of water are used to process and clean silk.

ENERGY:
The farming of commercial silk uses large amounts of energy, particularly to control temperature at silkworm rearing facilities, the cooking of cocoons, water heating and dyeing processes. However, silk production is found to be significantly more energy efficient than fossil fuel-based materials such as polyethylene [47].

ANIMAL WELFARE:
Most commercial silk leads to the death of silkworms as they are killed in their cocoons before maturing into moths. This has led to animal welfare concerns.

SOCIAL:
Some studies suggest that cocoon farmers are on extremely low wages and child labor has been reported in various stages of silk production in India [49].

MINERAL DERIVED MATERIALS

MINERAL DERIVED MATERIALS CLASSIFICATION

Material sustainability characteristics is a complex area with many environmental and social factors to consider. In this guide we have classified and recommended the use of materials that:

- **Promote circular practices** (e.g. recycled, upcycled, biodegradable materials)
- **Promote organic and regenerative practices** (e.g. organic materials or those derived from regenerative agriculture)
- **Promote better animal welfare** (e.g. vegan, responsible materials)
- **Promote lower environmental impact and fairer production processes** (e.g. recognised low-impact materials, certified or alternative leathers, forest-friendly materials, fairmined gold)
- **Are based on third-party certified sources** over non-certified ones.

The classification is in order of preference, ranging from 'Best' to 'Discouraged'. Any material we have classified 'Best' or 'Good' aligns with our FARFETCH Conscious Criteria, allowing products to qualify for the Conscious collections on farfetch.com and brownsfashion.com.
Please note: A minimum of 50% or more of more sustainable ('Best' or 'Good') material is required in the outer of the finished garment for the product to be considered a Conscious product in line with the FARFETCH Group Conscious Criteria.

BEST	GOOD	DISCOURAGED	BANNED
USING THESE MATERIALS ENABLE PRODUCTS TO QUALIFY UNDER THE FARFETCH CONSCIOUS CRITERIA.		THESE MATERIALS DON'T HELP A PRODUCT QUALIFY AS CONSCIOUS, BUT CAN BE USED.	THESE MATERIALS SHOULD NOT BE USED
RECYCLED BRASS	ECO-FRIENDLY/GREEN GOLD	GOLD	
RECYCLED GOLD	ETHICAL GOLD	BRASS	
RECYCLED/ECO-SILVER		SILVER	

*NGG does not work with any denim suppliers that use sandblasting in production (see the Denim section for detail).


GOLD

GOLD

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Fairtrade Standard for Gold and Associated Precious Metal

Fairmined Standard for Gold and Associated Precious Metals

EXAMPLES OF CERTIFICATIONS WE DON'T ACCEPT

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Initiative for Responsible Mining Assurance (IRMA)

Responsible Jewelry Council (RJC)

Gold is mined on every continent except Antarctica [55]. In 2019, total gold production amounted to 3,300 tons, with China being the largest producer, followed by Australia and Russia. The industries with the highest demand are the watch, jewelry and technology industries, as well as private investors and central banks [56].

PRODUCTION AND TYPES OF GOLD

Once mined, gold is sold to a trading house where local or regional buyers purchase it. The mineral is further sent to a smelter or refinery, where the ore is broken down and melted using high pressure, heat and chemicals, separating it from impurities. The gold can then be sold to traders, banks, manufacturers or jewelry companies. Jewelry companies can source their gold either directly from refiners or from international gold traders, manufacturers or gold banks. Gold can be melted continuously and used to make different types of jewelry products.

RECYCLED GOLD — BEST

Recycled gold is previously used, refined gold. Gold is an attractive commodity for recycling and approximately one third of all gold supplied in the last decade was recycled. Using recycled gold can significantly reduce the environmental impact of gold products and therefore is highly recommended.

ETHICAL GOLD — GOOD

Ethical gold, such as fairmined gold, is procured through responsible, artisanal mining. The supply chain is transparent, and measures are taken to ensure sound labor conditions, prevent illegal operations including child labor, avoid any contribution to armed conflict and minimize ecological damage. While this aims to minimize environmental impacts, the mining does not necessarily exclude the use of toxic chemicals as is done in eco-friendly gold.

CONVENTIONAL GOLD — DISCOURAGED

The gold supply chain is complex, with approximately 80% of all output coming from highly regulated and legally operated large-scale industrial gold mining (LSGM) and the remaining 20% from artisanal and small-scale gold mining (ASGM) [57]. ASGM constitutes smaller, informal projects, employing many more people. It is an important economic contributor to many developing countries, providing income to over 10 million miners. However, given their informality, there is limited regulatory control, leading to social and environmental issues such as labor rights violations. Gold can be melted continuously and used to make different types of jewelry products, helping mask its illicit origin, making traceability of the supply chain complex. There are more impacts listed in the section below.


SILVER

SILVER

EXAMPLES OF CERTIFICATIONS WE ACCEPT

Fairtrade Standard for Gold and Associated Precious Metal

Fairmined Standard for Gold and Associated Precious Metals

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Initiative for Responsible Mining Assurance (IRMA)

Responsible Jewelry Council (RJC)

In 2020, the largest producer of silver was Mexico, followed by Peru, China and Chile [58]. In comparison to gold, silver has lower market liquidity which makes the price more volatile and it is mostly driven by industrial demand [59]. In 2021, silver demand increased by 19% over 2020, where consumer electronics, silver jewelry and silverware demand were supportive factors of this increase [60].

PRODUCTION AND TYPES OF SILVER

Most of the silver mined and produced (approximately 73%) is a by-product from other metal mining including copper, lead, zinc and gold [61]. Silver is mined through open-pit and underground methods. Open-pit mining involves heavy machinery to gather large mine deposits and bring them to the surface. Underground mining instead uses deep shafts that are dug into the ground to extract ore. Once ores are extracted from either of these methods, they are crushed, ground and separated to concentrate the minerals. They are then brought to refineries where they are further concentrated through various processes called electrolysis and amalgamation.

RECYCLED SILVER — BEST

The benefits, similar to recycled gold, are that silver does not lose its properties, purity or quality when recycled and has a significantly lower impact than sterling silver as it bypasses the mining process and long transportation routes. Recycling of silver grew by 7% in 2020 [62].

SILVER

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WHY CHANGE?: CONVENTIONAL GOLD AND SILVER AND THEIR IMPACTS

The mining of gold and silver involves similar processes which have the potential to negatively impact both people and the planet. An overview of these impacts is presented below:

ECOSYSTEM POLLUTION AND CONTAMINATION:
Mining processes such as drilling and waste rock disposal can expose sulfide minerals to water and oxygen, creating sulphuric acid [50]. Sulphuric acid dissolves heavy metals such as arsenic and lead, contaminating the surrounding ecosystem and poisoning water and food sources. Energy intensive mining machinery also emits particulate emissions which deteriorate air quality, cause lead poisoning in humans and produce acid rain.

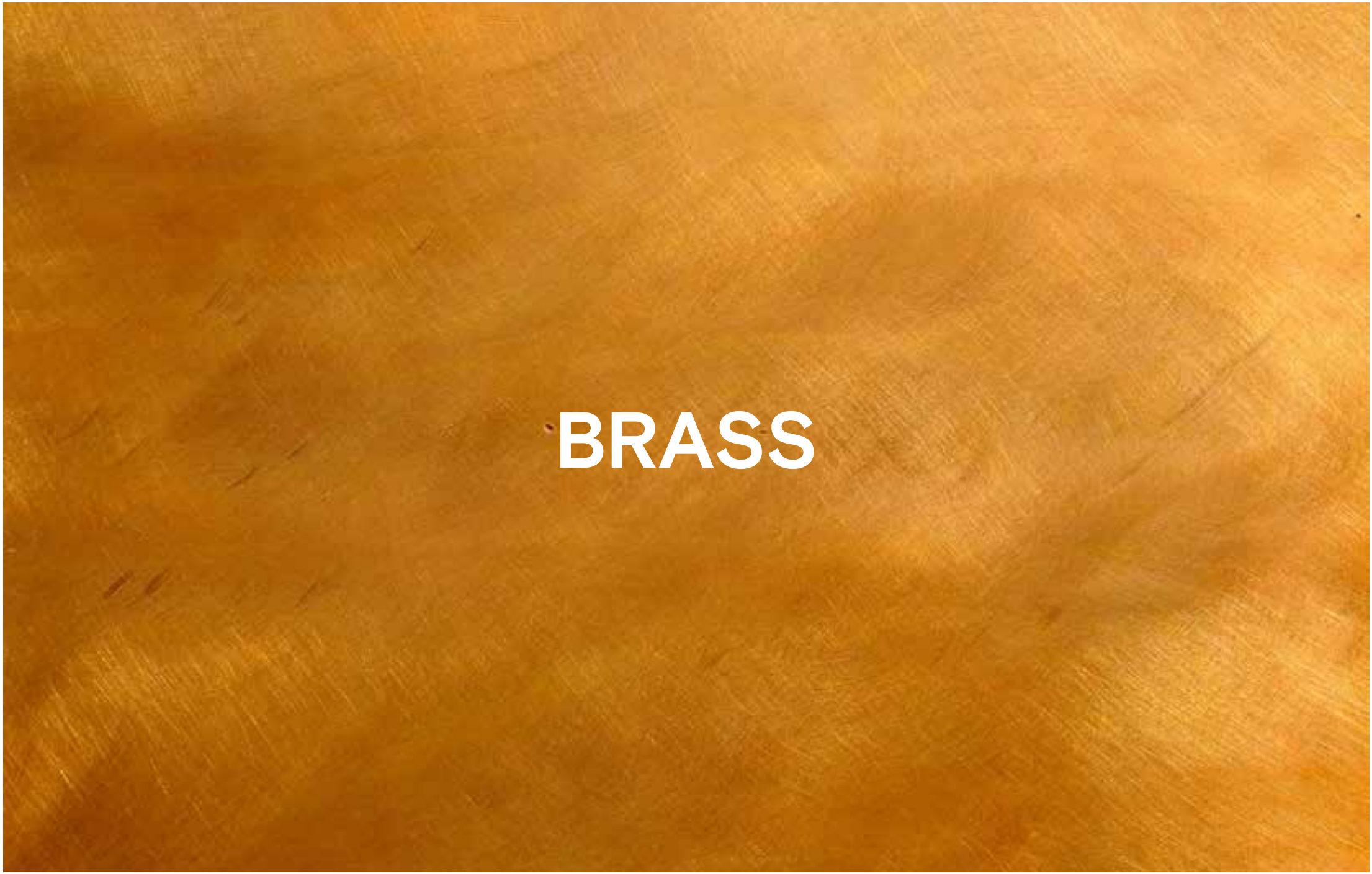
SOIL EROSION:
Mining can cause surface degradation, causing soil and sediment erosion [51].

METABOLIC AND NEUROLOGICAL DISORDERS:
Toxic chemicals such as mercury is often used to extract minerals. These toxins can enter the food chain at unsafe levels, bi-accumulate, and destroy entire ecosystems. If absorbed into the bloodstream of animals and humans, metabolic and neurologic diseases can result [52].

WATER ACCESS:
The extraction and processing of minerals, particularly in small-scale artisanal mines, is water intensive. Local water supplies can often become depleted, impacting community access to water for cooking, drinking and irrigation.

BIODIVERSITY LOSS:
Mineral extraction destroys large areas of forest and re-routes rivers, causing habitat loss, and fragmentation within both terrestrial and marine environments. Mining-related processes contribute to deforestation worldwide, negatively impacting water quality and climate change [53].

SOCIAL IMPACTS:
Mining projects pose significant threats to social stability. Forced resettlement, corruption, poor working conditions, inadequate pay and child labor are some of the potential impacts.


BRASS

BRASS

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Initiative for Responsible Mining Assurance (IRMA)

Responsible Jewelry Council (RJC)

Brass is a common choice for manufacturing jewelry given its affordability and durability.

PRODUCTION AND TYPES OF BRASS

Brass is made from zinc and copper. It may also include small quantities of tin and lead. Brass galvanization involves the application of a thin layer or coating of brass, used in a variety of industries and commonly used to prevent corrosion. Within fashion, it is a popular metal to produce jewelry given its resemblance to gold as well as affordability, durability and workability. The quality and properties of brass vary depending on the ratio of copper and zinc used to manufacture the metal.

RECYCLED BRASS — BEST

Brass is one the most recycled metals in the world. It is highly dependent on scrap brass and copper and is significantly cheaper than producing novel forms of brass. The recycling process of brass is more energy efficient than aluminum or steel and can be done multiple times without losing its quality.

BRASS — DISCOURAGED

Brass is highly dependent on scrap brass and copper, and is significantly cheaper than producing novel forms of brass. Mining the elements -- copper, zinc, and often tin that make up brass contributes to global climate change by adding to atmospheric carbon.

COMMON DEFINITIONS

Our Material Sourcing Guide refers to several concepts, some of the main ones defined below:

PRE-CONSUMER MATERIAL
A product made from pre-consumer recycled content contains waste that never made it to the final consumer. Examples include rejects, scraps, trimmings or components that end up on the factory floor and are repurposed into new material rather than be disposed of.

POST-CONSUMER MATERIAL
Material generated from waste that's been used by a consumer, disposed of in a recycling bin for pick-up or diverted from a landfill. Examples include carpets, fishing nets, clothing and newspapers.

RECYCLED MATERIAL
Pre or post-consumer material that has been reprocessed and altered by means of a manufacturing process, and transformed into a final product that serves a different purpose from the original one.

MECHANICAL RECYCLING
Mechanical recycling of textiles is the process of recycling the fabric back into fibers without the use of any type of chemical. This process includes shredding and carding processes to extract the fibers from the fabric. The fibers can then be spun again to make yarn for either woven or knitted fabric.

LIFE CYCLE ANALYSIS (LCA)
Life cycle analysis (LCA) is a method used to evaluate the environmental impact of a product through its life cycle encompassing extraction and processing of the raw materials, manufacturing, distribution, use, recycling, and final disposal.

CHEMICAL RECYCLING
Chemical textile recycling adopts a series of chemical processes to depolymerize or dissolve the fiber form of the fabric into monomer/solvent form, either to make newer fiber compounds or extract one compound from a mix. The output products are most often the same in quality as their virgin counterparts, with no loss in physical properties through the recycling process.

REUSED OR RECLAIMED MATERIAL
Often wrongly confused and unlike a recycled material, a reused or reclaimed material or product is not being discarded and is used more than once without processes that can alter its original form or final state. Examples include reclaimed fabrics, reclaimed clothing.

REGENERATIVE AGRICULTURE
Farming and grazing practices that, among other benefits, help to reverse climate change by rebuilding soil organic matter and restoring degraded soil biodiversity — resulting in both carbon drawdown and improving the water cycle.
*source regeneration international, all rights reserved

UPCYCLING
Rather than breaking down waste into a raw material like recycling to create an entirely new product, upcycling aims to rework waste into new products while preserving some of their original features.

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