

SUSTAINABILITY OF TEXTILE MATERIALS

The sustainability of an item of clothing is measured over the whole lifecycle of the garment; from how it's made and what it's made from, to how often it's worn and washed, and finally what happens after it's no longer wanted.



sustainability of clothing is a hot topic at the moment, with many clothing brands producing sustainable collections, or claiming to be sustainable but without saying how they are being sustainable. Unfortunately, many brands are not sustainable and instead use it as a marketing ploy to get people to buy their clothes, otherwise known as "greenwashing". Changing Markets report "Synthetics Anonymous" found that out of the companies they researched who made claims about sustainability, 59% made claims that flouted the UK Market and Competition Authority's green-claims guidance.

How do we assess the durability of clothing?

1. How it's made/what it's made from

Different materials are used to make fabric. The most common fabrics you will come across are wool (from sheep), cotton (from the cotton plant) and polyester (a synthetic plastic fibre made from crude oil). Each one has different environmental concerns and has a different impact on the environment when it is made. For example, cotton is grown in hot countries but needs a lot of water to grow-up to 10,000 litres of water for just one pair of jeans, which is about 10 years' worth of drinking water for one person.

Polyester is a plastic fibre, so releases a lot of carbon dioxide when it is made-one polyester shirt produces about 5.5kg of carbon dioxide versus a cotton shirt which produces 2.1kg.

The dyes, bleaches and chemical processes used to colour our clothes also have a big environmental impact when hazardous chemicals are released into the water supply.

Many fashion brands use polyester in their clothes, and in an attempt to be more environmentally friendly they use recycled polyester. Unfortunately, this doesn't mean that they are recycling old clothes to make new clothes; in fact, recycled polyester (or rPET) is made from plastic bottles. There are a few highly debated issues, when it comes to using rPET in clothing; though it saves you from having to use new crude oil, unless it's made from sea plastic (plastic pollution removed from the sea) it is technically classed as "downcycling", where a material loses quality through the recycling process and cannot be easily recycled in its new form. Because recycled polyester is often mixed with other fibres to make clothes, it can't be recycled in the future to make clothes again (more on that later). When clear plastic drinking bottles are used to make rPET, they can actually be made back into plastic bottles again without downcycling to the same extent, so can have a much longer life through their many iterations before going to landfill or being downcycled.

2. How often it's worn and washed

The way we treat our clothes once we've bought them also plays into how sustainable they are. By buying an item of clothing and using it for as long as possible, we reduce its carbon footprint—using a garment for nine months longer could reduce its environmental impact by 20–30%.



Buying a higher quality item also means it will last longer as it will be better made and therefore more durable. Unfortunately, a lot of the clothes sold in the UK are classified as "fast fashion".

Fast fashion is when clothes are made quickly in high volumes to copy catwalk and celebrity trends and are sold at a cheap price. Because fast fashion items are made quickly, they are often made of low quality, cheap materials, with low durability.



Repairing clothing when they start to wear out is a great way to improve the sustainability of an item by helping it to last longer.

Another way of improving the sustainability of your clothes is to not wash them as much, and to wash them on a lower heat. This can be especially important for synthetic fabrics, like polyester, that shed microplastics into the water every time they are washed—each cycle of a washing machine can release more than 700,000 plastic fibres into the environment. You can help prevent most of these microplastics from polluting water by using a filtering bag when you wash your clothes.

3. What happens when it's no longer wanted?

It's important to think about what happens at the end of a garment's life as this will also affect its sustainability.

If you choose to put your used clothing in the bin, it will either be buried in a landfill or burnt. Unlike a normal compost heap, landfills don't allow any air to circulate, so clothes take a very long time to break down—synthetic fabrics can take hundreds of years to break down. Burning waste in incinerators also has a negative effect on the environment.



Sorting textiles is done by hand and takes a long time and a skilled workforce to separate good from poor quality items, and to separate it by fibre content for recycling, so it is an expensive process.

Less than 1% of clothing that is recycled actually becomes clothing again. Most clothing is shredded and downcycled into things like stuffing for mattresses, car upholstery and insulation.

