



## Wool and Synthetics

Old wool and synthetic items – like jumpers, coats and suits – are sent off for recycling into a flock-based material that can be used as a filler or insulation material in hundreds of different products. On arrival, the contents of each clothing bale are unloaded onto a conveyor belt and passed through a shredding machine. This cuts the items up into strips or smaller sections. From there, they continue their journey along the conveyor belt into a pulling machine, which pulls the shredded garments apart so that what's left at the end are material fibres.

There are several end products depending on how fire retardant the recycled fabric is (different materials have different fire properties). And there are hundreds of different uses for these materials:

- Filling for settees
- Filling for mattresses (the main use for recycled wool and synthetics)
- Insulation for car seats and soundproofing for cars
- Soundproofing material for white goods, like washing machines and tumble dryers
- Home insulation (for example, lofts)
- Underfelt for carpets
- Insulation for pipes
- Blankets used by removals firms



## What next?

Textiles recycling is an area of great innovation, with many possible advances in the recycling of certain materials already on the horizon:

- Textiles recycling company, LMB, is working on a so-called 'closed loop' system for recycling polyester clothes. In a process similar to plastics recycling (but which has yet to be developed), polyester garments would be shredded into much smaller pieces then mixed with chemicals and heated to produce polyester pellets, which could be remade into new products.
- LMB is also looking into whether cotton can be reverted back to its cellulose form to make new garments or paper-based products.
- And in the future, old wellie boots made from rubber might be turned into new products, like pencil cases...



# How are clothes recycled?

It's estimated there are 1.7 billion items of unused clothing sitting in wardrobes around the country – that's about 27 items for every person in the UK!<sup>1</sup> But unwanted clothes, shoes, towels, curtains and other furnishings don't have to end up in the bin. If you recycle them, you'll be helping the planet by keeping them out of landfill (where items like your school trousers never rot – and other clothes, like old wool jumpers, let off harmful greenhouse gases). This poster follows what happens to your clothes when they're recycled.



## Africa 75%

Clothing bales travel to Africa by road, then sea, over two to three months. On arrival, the container is unloaded and the goods are taken to a warehouse where the bales are sold to market stallholders and shop owners. Some may sell them on again to travelling salesmen. All types of garments are sold in this continent – including those you might not expect, like your old school uniform, anoraks for rainy days, socks and LMB, the textiles recycling company, even has one customer in Zambia who specifically requests corduroy trousers! Most shoes end up in West Africa too. They're paired on arrival and divided into three or four different grades, depending on their condition. Many shoes we think are irreparable will be restored carefully by tradesmen in Africa, and resold in an as good as new condition.



## Pakistan 19%

Popular items here include men's jackets, skiwear, fur and sheepskin coats! Tradespeople will often restore items (like a leather jacket) before selling them on, or will recycle anything locally that can't be resold.



## Eastern Europe 5%

Sellers in this region favour current fashion and nearly-new items (similar to the condition of clothes you'd buy in a charity shop here). Once the items have been baled up, they're delivered by lorry to countries in Eastern Europe.



## UK 1%

Perhaps surprisingly there's popular demand for secondhand clothes in the UK, namely vintage or retro pieces.

## Your clothes' journey begins here...



Textiles recycling companies, like LMB, weigh and sort through bags of clothes they receive at their factory in East London. The textiles are sorted into items that can be reused and those that are too stained or damaged, which are recycled. They'll remove anything that shouldn't be in the bundle – like a rogue coat hanger! – and if an item is dirty (an old football kit, for instance) they'll decide whether the stain can be washed out (in which case the garment will be reused) or whether it has to be recycled instead.

## 63% Reuse

There's a thriving market for secondhand clothes in Eastern Europe, Africa and South Asia, and this is where the majority of your old clothes and shoes will end up. LMB's workers group items together by garment and type (so polyester blouses are put in one bundle, cotton blouses in another and so on). Altogether, there are about 130 'grades' (different item types) that leave LMB's warehouse.

## 37% Recycling

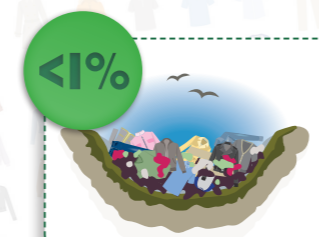
### Recycling

Clothes that are stained, damaged or ripped are sent off for recycling. The recycling process and the end product vary, depending on whether the garment is made from cotton, wool or synthetics.



## Cotton

Cotton or cotton-based items are recycled into cleaning wipers for commercial companies. The textiles are sorted to make sure they're clean, dry and suitable as a wiper – essentially that they are cotton-rich and absorbent. They're then graded by type – so all sweatshirts in one group, coloured shirts in another etc. Next, the fabric is fed through a machine with a CD-sized steel disc to remove buttons, zips and collars, before the wiper is cut to a panel of about 30cm<sup>2</sup>. All wipers are then passed through a metal detector to check if any metallic items are still attached to the garment, prior to being packed in compressed bags or boxes to be sold to commercial companies.



## <1% Landfill / Energy from Waste

Less than 1% of items are sent to landfill or burned to produce energy. More often than not, it's general household rubbish that's been bundled with the textiles by mistake, rather than clothes or shoes.

**Did you know...**  
An estimated 350,000 tonnes of used clothing goes to landfill in the UK every year – that's about the same weight as five QE2 ships!<sup>2</sup>



Working in collaboration with **WASTE BUSHER**



<sup>1</sup>Source: Valuing your Clothes report, WRAP.  
<sup>2</sup>Source: Valuing your Clothes report, WRAP, Wikipedia