

# TEXTILE USE & CARE

## What & How



## INTRODUCTION

Eventually, the textile products we buy will begin to show signs of wear. After prolonged use, the colour fades, spills cause stains, the fabric tears, and unpleasant smells begin to linger. This is, of course, completely normal. We all accept that textiles have a limited lifetime. However, to reduce our environmental footprint, prolonging a textile product's life is of the utmost importance.

When we talk about sustainability, we usually focus on raw materials, textile chemistry, recycling, and the longest possible product life. All of these things are important, but how sustainable is the product during the use phase?

In the context of the Reflow project, it is important to understand that a significant portion of the environmental impact of textiles is related to the laundering and maintenance of textiles. There are a lot of exciting technological developments happening in the area of textile care. For instance, there are now technologies and materials that help keep clothing from smelling bad for prolonged periods, so the garments don't have to be washed as often.

For other types of textiles (e.g. bed sheets, towels, and underwear), however, there are additional hygiene concerns that make frequent washing necessary. Despite the environmental footprint, changing and washing certain textiles is essential for health and wellbeing.

## LAUNDRY

Most households have a washing machine and, quite often, a tumble dryer. Regularly cleaning your clothes and household textiles is vital for maintaining sufficient hygiene standards within your home.

To do the laundry, we require water, detergent, and energy (both for heating and for the rotation of the drum). It takes time for the textile to release the dirt and pollutants into the washing water, and modern detergents help keep the dirt from redepositing on the clothing. While hotter wash cycles increase energy consumption, there is a very good reason for higher temperatures: hygiene. To kill bacteria and other germs, always wash towels and underwear at temperatures higher than 50C.

Additionally, it is important to regularly clean your washing machine, especially the rubber closure and the detergent dispenser, to maintain a hygienic environment. Proper hygiene standards become even more important when washing laundry at lower temperatures, as microbial contaminations can cause foul odours and infection. The use of powder detergents containing activated oxygen bleach provides a way to achieve high microbial reduction in low temperature washing.

Once the textile products have been washed, they must be dried. Unfortunately, tumble dryers are not as energy efficient as washing machines. Washing and tumble drying are intensive processes, which contribute considerably to the wear of the textile products. Fewer washing and drying cycles result in a longer life for textile products.

## WHY SHOULD YOU WASH LESS?

By washing our textiles less, we use fewer chemicals, less water, and less energy. We also extend the life of our clothes and save time and money. We don't have data for the Netherlands or Amsterdam, but an average household in the USA washes about eight loads of laundry a week, and the entire laundry cycle takes about 3.5 hours. In France, textile care reaches nearly six hours per week.

And laundry is expensive: washing and drying costs €1.30 per load (excluding the cost of the machine), which is €520 per year. For developments in the area of domestic laundry, you can [watch this video](#) (in Dutch).

Washing, unfortunately, also has its downsides. For instance, a garment made of fleece loses up to 20 percent of its weight per year when washed once a week, which indicates that it pollutes our waters with microplastics.

## CLEAN CAN ALSO BE GREEN

Of course, there are many scientific and technical developments arising to ease the burden of domestic maintenance, including laundry. For example, there are products that can be sprayed onto a garment to help it to stay clean and fresh. Usually these products contain silver oxide, water, or oil repellents. These products claim that they prevent the growth of odor-causing bacteria by either using low concentrations of silver salt or by reducing the amount of moisture to inhibit bacterial growth.

But the choice of materials can also help. If you invest in materials like merino wool, you can save yourself the trouble of washing a lot of clothes. If you air out the merino products overnight, odours will quickly disappear without washing. Washing is only necessary for sheep's wool if the clothing is really dirty. This is one reason why many outdoor sportsmen wear merino underwear (especially on longer tours).

# LAUNDRY FOR LONGEVITY

## HOW TO MINIMISE THE IMPACT OF THE USE CYCLE

- If you have a choice, buy fabrics that are naturally durable and require little care.
- Try to wash your clothes as little as possible. This does not mean you have to wear dirty clothes (hygiene is important), but remember that the more frequently you wash something, the faster it will degrade.
- Fold clothes along the seams to avoid unwanted creases and to maintain the shape of the item.
- Learning basic clothing repairs (e.g. replacing a loose thread or a missing button) can make pieces last longer and save you tonnes of money.
- If you do not have time to iron, steam your clothes by hanging them in the bathroom while you take a hot shower.
- Empty out pockets before washing. Remember to remove tissues or other odds and ends which can make a mess of your laundry.
- Close zippers and other fasteners to prevent snagging. Also, loosely tie strings and sashes to prevent tangling.
- For denim, hang jeans in the bathroom before a shower (the damp steam will keep them fresh between washes) or freeze them in a plastic bag for two days to remove odours.
- Avoid the dryer when you can. Researchers found that repeatedly drying cotton garments led to cracks in the clothing, which reduced fabric strength by 25 percent or more and also caused pilling.

# LAUNDRY FOR LONGEVITY

## SOME MORE TIPS & TRICKS

- Do not over-wash clothes. Select the setting on your washing machine that allows for the least amount of soaking and fewest spin cycles. For delicate fabrics, use a gentle cycle.
- Reduce fading: wash your clothes inside out. Spin cycles can be hard on clothes – it is much better for the inside of your clothes to face the brunt than the outside.
- Avoid washing an entire garment to remove a stain. Instead, gently dab the stained spot with detergent and place it face down on a paper towel for a while.
- Delicate fabrics should be hand-washed. Hand-washing saves water and prevents your clothes from excessive spinning inside a washing machine.
- Some detergents use harsh chemicals which can fade, shrink, and tear delicate fabrics. Use as little detergent as possible. Powdered detergents can be harsher on clothes, so opt for a liquid one instead.
- Do not overuse the dryer. The heat from the dryer is probably ruining the fabric, the elastic, and the metal parts of your clothing. The dryer can shrink and fade your clothes. If you must use the dryer, do so on a low heat setting.
- Get clothes out of the washer and hang them out to dry as soon as possible to prevent small wrinkles and to allow them to air.
- If you have a backyard or outdoor space, buy a clothesline and allow your clothes to dry naturally outside. Consider purchasing a collapsible drying rack for clothes if space is an issue.
- Be careful with the iron. Proper ironing is essential to good clothing maintenance. It gives you wrinkle-free trousers and crisp shirts with a strong shape. Ironing is the key to preventing fabric roll – when shirt and jacket collars lose their crispness with age. But irons also have a dark side. They can:
  - Soil your clothes (rust stains from a dirty iron)
  - Burn your clothes (if you pick the wrong setting)
  - Permanently stain your clothes (heat sets stains into the fabric)
- Remove stains immediately. Act immediately: once the stain forms a chemical bond with the fabric, it becomes permanent.

# PROFESSIONAL TEXTILE CARE

For hotels, restaurants, and other professional organisations using textiles, maintenance is often farmed out to the professional textile service industry. Professional Textile Care includes the Textile Cleaning Industry (TC) and the Textile Services/Industrial Laundry (TS) sector. Textile Cleaning predominantly focuses on consumers, with a variety of different businesses such as traditional laundry and dry cleaning shops; centralised plants with more automation and pick-up points; coin-operated laundries; and, more recently, laundry on demand services (through apps).

The Textile Services/Industrial Laundry sector focuses on customers in business sectors like HORECA (i.e. hotels, restaurants & catering), health care (i.e. hospitals, nursing homes, home care) and trade & industry (i.e. a wide variety of industries in need of work wear, mats, hygiene, etc.). Within the Textile Service sector, laundries usually either offer a laundry service for customers who own the textiles, or offer a textile rental service where customers rent the laundry's textiles. Textile rental is actually quite common (especially in mature markets). Due to size and scale, there could be environmental benefits to using the textile service industry.

## WHAT SHOULD OR SHOULD NOT BE DRY CLEANED?

Fabrics that (usually) do not need dry cleaning include:

- Cotton.
- Synthetic fabrics like polyester, nylon, spandex, acrylic and acetate. These will not shrink, so it is safe to wash them in warm water. However, remember to use gentle or low dryer settings because they can permanently wrinkle in a hot dryer. These fabrics also produce a lot of static electricity in the dryer so remember to use a dryer sheet or hang them to dry.

Fabrics that should be dry cleaned include:

- Linen.
- Rayon.
- Silk. While silk is a natural material, it requires special care. Dry cleaning silk tends to be easier.
- Wool. This sturdy fabric should be dry cleaned whenever possible. Smaller wool products can be hand washed.

Professional cleaning will certainly save you from having to replace quality items in your wardrobe.

# MENDING & MAINTENANCE

## TEXTILE CARE

To prolong the lifetime of your textile product, fix small clothing damage issues immediately. If you tear a small hole in your shirt or lose a button on your coat, be sure to reach for your sewing kit. Watch [this video](#) to get an idea of what basic mending looks like.

If you are not comfortable doing this kind of clothing maintenance yourself, it is worth your time to find a tailor who is willing to help repair any damage or make alterations to new clothes. A good tailor can save you from having to buy new items of clothing by keeping your old favourites in top condition for many years.

### BASIC REPAIRS

- **Buttons & Zippers:** You can do this at home with a basic sewing kit. It takes almost no skill to sew or tighten them.
- **Loose lining:** If the lining on trousers or jackets becomes loose or if they are looking worn out, take them to the tailor to have them replaced. Don't wait until you have sizable holes on the inside of your jacket.
- **Tapering:** Over time, jackets can lose their shape because of poor clothing maintenance. Waist suppression brings the waist of a jacket in to create a pronounced "V" shape over your torso.
- **Altering Length:** Ensure your trouser legs are the right length. A little cloth to work with is sufficient for a tailor to alter the length to make sure the trouser isn't too short or drooping all over the floor.
- **Holes:** Small holes, especially around the seams, are relatively easy to fix. Take your clothing to a tailor before the holes get bigger.
- **Cuff & collar fray:** Clothes tend to wear out earliest and worst at the edges. Damaged fabric can be hidden by folding the cuff over and stitching it into place, creating a new edge. Note that this will shorten the sleeve or leg slightly.

### HOW DOES THIS CONNECT TO REFLOW?

Prolonging the lifetime of your textile product has real environmental benefits. As we discussed above, there are numerous actions you can take to extend the in-use time of your textile product. Prolonging textile use for as long as possible is one of the goals of Reflow. If you have used the products for as long as possible, then remember to discard it in such a way that the material can be recycled.



**Above:** *Repairing your clothing doesn't have to be boring—it can be a form of creative expression! Do you have a hole in your favorite sweater? Give visible mending a try. Photo and mending by Beatriz Sandini.*

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**BECAUSE IT NEEDED**  
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**\*ACCORDING TO A SURVEY CONDUCTED IN THE UK**

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