Guidance on design for longevity – childrenswear

Extending the lifespan and use of garments is one of the most significant ways of reducing the environmental impact of clothing.

Product overview

- This category covers clothing for children from babies to teenagers, including schoolwear, nightwear, trousers, skirts, t-shirts, coats, knitwear, party clothes and fancy dress.
- Children are often physically active and so require comfortable clothes that enable them to move freely.
- Childrenswear therefore needs to be practical and hard-wearing, so the quality of raw materials and garment construction is especially important.
- It is also important that strong quality assurance systems are in place and adhered to.
- Many consumers engage in sharing and swapping childrenswear and passing on items for re-use – another reason for emphasising quality. Parents often expect that children will outgrow their clothes before they have become worn out.
- There may be business opportunities for suppliers around ‘buy back and resale’ or hiring schemes.

Top five solutions

- Designing in a growth allowance.
- Selecting fabrics and components that are proven to offer durability and colourfastness.
- Applying fabric finishes to reduce the likelihood of staining.
- Designing garments for multi-functionality (such as reversible coats).
- Reinforcing weak areas, or areas liable to extra stress such as elbows and knees.

Extending the average life of clothes (2.2 years) by just three months of active use per item would lead to a 5-10% reduction in each of the carbon, water and waste footprints, and cut resource costs by £2bn.
What limits lifetime?

Childrenswear is typically disposed of because either the child outgrows it or an item becomes worn with heavy use.

- Children quickly outgrow clothes, especially if there is no built-in adjustability.
- Garments are washed frequently. This weakens the fabric and can cause fading, giving it a worn appearance.
- Shrinkage can occur if garments are washed at excessively high temperatures.
- Fabrics aren’t durable enough for the intensity of wear.
- Substandard components (zips, buttons etc.) can fail and seams break due to the use of lower quality components or threads – and people either can’t, or choose not to, repair them.
- Fashion-conscious teenagers buy cheap items that are often of lower quality, which are then readily replaced when they fall out of fashion.

Around 30% of clothing waste ends up in landfill.

The waste footprint for clothing is estimated at 1.2 million tonnes, equivalent to 5% of UK household waste.
Recommendations on fibre and fabrics

Choosing the right fabric and trims can have a significant impact on the durability of childrenswear, which often needs to be more hard-wearing than adult equivalents. Fabrics need to be chosen to reflect the likely end use.

- Testing fabrics for durability, colourfastness and pilling not only meets safety requirements but can also help produce longer-lasting garments. Testing can be conducted prior to production and at various stages of production.
- If using fabrics susceptible to shrinkage (e.g. cotton, wool), consider using pre-shrinking treatments prior to production.
- Fabric finishes to help withstand stains are very useful as childrenswear is especially liable to soiling.
- Elastomeric yarns within fabrics can help them recover from stretching and minimise loss of shape.
- Wearer trials are highly recommended to find out the suitability of a garment in relation to its end use and ensure that quality issues such as durability and colourfastness to laundering are identified prior to delivery into store.
Recommendations on design and manufacture

The fundamental issue for childrenswear design is that there are two distinct audiences: children themselves, and parents. Product development teams need to address the priorities and interest of both.

- By designing-in growth allowance for both width and length, longevity can be increased. Options include elastic waistbands and generous hem allowances: sleeve and trouser lengths could have turn-up hems that could be let out when growth occurs.
- Children’s heads are generally large in proportion to their bodies. This is important to consider when designing necklines.
- Reinforcing areas such as elbows or knees that are weaker or liable to heavy stress can increase lifespan. For example, patches could be applied or provided.
- Multi-functional garments can increase usage before the child outgrows them. For example, reversible coats, t-shirts that may be worn as pyjamas, and long loose shirts that can be worn as a dress all give more options for wear.
- Components such as buttons need to be attached strongly. There are a number of tests that can be applied, such as the EU childrenswear pull test.
- Designers can also influence longevity by creating garments that can be easily repaired when damaged or worn.

Durability is a key consideration when designing longevity for children’s garments
**Recommendations on care and repair**

Both children and parents can benefit from advice and encouragement to look after their garments by using appropriate laundering and storage practices. As well as focusing on ‘easy care’, there is an important message to ‘keep caring’ – encouraging and facilitating repair or promoting alteration or after-sales services.

- **Childrens’ clothes are often soiled relatively quickly and may require frequent laundering.** However, where possible, it is worth encouraging children to wear clothes several times before they are washed – which may require educating parents so they understand that it is not always necessary to wash after every use.

- **To encourage parents to make small repairs,** swing tickets can recommend sewing loose buttons and small tears in seams, and include suggestions on how to customise garments, along with off-cuts of fabric and threads.

- **Matching thread and spare buttons and other components can be supplied with garments.**

- **Children themselves can play an important role in looking after their clothes.** Child-friendly care advice, such as suggestions for how to hang or fold clothes, can encourage them to do so – and impress good practices upon them.

- **Sewing factsheets and repair kits aimed at children can enable them to learn these skills.**

- **As specialist skills and machinery may be required for major repairs,** there is a commercial opportunity to either develop specialist aftercare services or identify companies to recommend to customers.
Recommendations on re-use and discard

There is a strong tradition of re-use of children’s clothes, whether handed down to siblings, passed to friends or wider family, or given to charity. Parents expect that children will outgrow their clothes before they have become worn out.

- The clothing industry can support re-use particularly with wider guidance beyond simply passing clothing to siblings. Retailers’ websites could provide consumers with advice about resale opportunities and how run a swap or swishing event, as well as what to do with items that are worn out.

- Adjustable features and elements not only mean clothing can ‘grow’ as the child does, but also help items to fit a wider range of shapes and sizes when passed on.

- Garments designed in classic styles and colours are more likely to be re-used. This is particularly important for schoolwear.

- Garment design can also affect the ease with which clothes are recycled. Using a single fabric facilitates recycling, but where multiple fabrics and components are used, there is scope for designers to make it easy to disassemble these, without compromising the robustness of the product.

- To encourage recycling, children can be offered visits to recycling or waste management facilities.
This is one of a series of Guidance Notes for product development teams offering guidance on design for longevity.

For further information visit:

www.wrap.org.uk/clothing