

Composition and re-use potential of household bulky textiles in the UK

WRAP has undertaken research to understand the composition of bulky waste in terms of item type and re-use potential, in order to identify the barriers and opportunities for the re-use of bulky items across the UK. Items disposed of via local authority kerbside bulky waste collections (BWC) and at Household Waste and Recycling Centres (HWRCs) were included in the research.

The research recorded all bulky waste by analysing call centre logs for bulky waste kerbside collections, compositional analysis of kerbside collected bulky waste for re-use potential and surveying individuals depositing bulky items at HWRCs. Bulky waste items included WRAP's priority materials of WEEE, textiles and furniture.

What are bulky textiles?

This study defines bulky textiles as carpets, rugs and underlay (it excludes off-cuts or small rugs that can fit in a wheeled bin), mattresses, large 'leisure textiles' (such as tents and tarpaulins) and soft furnishings.

Mattresses have been categorised as soft furniture in other work and therefore caution should be exercised when attempting a direct comparison with data from elsewhere.

How much of bulky waste is comprised of textiles?

Of all bulky waste in the UK around 19% consists of textiles; this is around 310,000 tonnes.

What are the main textile products being disposed of?

Figure 1 below shows the main bulky textile items that are disposed of and an estimate of the tonnage collected throughout the UK in 2010/11.

Nearly 80,000 tonnes of mattresses are estimated to arise at HWRCs per annum. Half of all mattresses disposed of at HWRCs are single sized and 43% are double.

The remainder are king-size, futon and cot mattresses. More than 60% of mattresses collected at the kerbside are double sized and nearly 39% are single mattresses.

How much could be re-used?

At HWRCs, both a visual assessment by the surveyor and the householder's assessment of re-use potential estimated that nearly 30% of textiles are re-usable.

56% of all mattresses disposed of at HWRCs had visible fire safety labels. Over 25% of all mattresses were assessed as being very clean. Double mattresses tended to be cleaner than all other sizes, and futon mattresses were more heavily soiled than all others.

A much lower proportion of bulky textiles collected at the kerbside were assessed as re-usable (less than 10%).

Around 20% of carpet at HWRCs was assessed through visual assessment as very clean and suitable for re-use and nearly 30% was heavily soiled and so unsuitable for re-use. The remainder would require cleaning to some extent to become suitable for re-use.



Figure 1: Estimated tonnes of main textile items within bulky waste, UK 2010/11

Item summary	HWRC national estimate	BWC national estimate	Total national estimate
Mattress	79,775	86,699	166,474
Carpet	82,056	21,916	103,972
Underlay	16,835	3,180	20,015
All other bulky textiles	Not Calculated	Not Calculated	20,000

What are the opportunities?

The quantity of mattresses and carpet in bulky waste presents an opportunity to divert large tonnage of waste from landfill. As re-use options are more limited, it may be more sensible to develop recycling infrastructure for these wastes.

Are there any demographic differences?

More ACORN^[1] Category 2 households ('Urban Prosperity') set- out bulky textiles (mainly carpets and mattresses) for collection at the kerbside. There was little variation observed in the quantity of bulky textiles taken to the HWRC from different ACORN households.

Are there any differences between textiles taken to a HWRC and set out for a BWC?

Mattresses account for 16% of the total kerbside bulky waste stream. This is similar to the proportion of all WEEE items collected at the kerbside.

Whilst significant amounts of mattresses do arise at HWRCs (approximately 8% of the whole bulky waste stream), it is unsurprising that such bulky items are more likely to be set out for collection as they are difficult to transport.

^[1] ACORN (acronym for A Classification Of Residential Neighbourhoods) is a geo-demographic information system categorising some United Kingdom postcodes into various types.