Guidance on re-use and recycling of used carpets and environmental considerations for specifying new carpet

A practical guide for facilities professionals to encourage more re-use and recycling of used carpet and to highlight best practices for extending carpet lifetime and refurbishment specification

**Project code:** MPD001-012  
**Date:** March 2014  
**Research date:** October 2013 – March 2014
WRAP’s vision is a world in which resources are used sustainably.

Our mission is to accelerate the move to a sustainable resource-efficient economy through re-inventing how we design, produce and sell products; re-thinking how we use and consume products; and re-defining what is possible through recycling and re-use.

Find out more at [www.wrap.org.uk](http://www.wrap.org.uk)
Executive summary

Floor finishes are a significant element of a building, contributing to around 12% of the overall environmental building impact.¹ Carpet, including tiles and broadloom, is the predominant floor covering used in both domestic and commercial settings accounting for 58% of the floor finishing market in the UK.²

The environmental impact of carpets is high. This is due to the fact that they are frequently replaced long before the end of their service life for aesthetic or design reasons; leading to a loss of valuable non-renewable resources. Historically there has been a relatively low level of re-use and recycling. In recent years however, used carpet has developed from a waste to a resource which can be re-used for a second life providing significant social and environmental benefits, or recycled into new products.

The landfill diversion rate for carpet has increased from 2% in 2008 to 27% in 2013 as more outlets for carpets have developed. Correct handling of carpet during the refurbishment and replacement process greatly increases the end-of-life options for carpets. Equally, careful selection of the new flooring product for the building can have a positive impact on the environmental footprint of a building.

Against this background WRAP has commissioned Carpet Recycling UK to provide practical guidance for facilities professionals with regard to re-use and recycling of used carpet and to highlight environmental considerations for specifying new carpets. The information provided within this document can be used as an introductory guide for facilities professionals to understand the environmental impacts relating to end-of-life carpets and selecting new carpets. This document utilises hyperlinks to assist navigation within the document and to direct the reader to the sections of most relevance to them.

The target audience includes facilities managers in the public and private sector, housing associations and floor layers. Focus has been placed upon post-consumer carpet waste that is most likely to arise in refurbishment projects completed by facilities professionals, including:

- Carpet tiles;
- Broadloom needlefelt;
- Broadloom tufted;
- Broadloom woven; and
- Underlay.

The guide provides information on how to identify the type of carpet used on the floor. This is an essential part of the refurbishment planning process as the carpet material; structure and condition are important factors in determining the second-life application of the product.

A detailed map of re-use, recycling and recovery outlets for carpets in the UK is provided, along with acceptance criteria and contact details for each organisation. Due to the bulky nature of carpets it is necessary to carefully consider the distance travelled to an appropriate re-use or recycling facility. It is best to consider regional outlets where possible to reduce the


mileage required to transport material, as transporting long distances can incur higher costs and increases carbon emissions.

Specifications for refurbishment should include the uplifting and correct disposal of carpets or carpet tiles. Uplifting broadloom carpet and carpet tiles early on in the refurbishment project helps to maintain the condition of the material and will increase the options for re-use and recycling. It is important to inform the refurbishment contractor how to uplift and store the flooring during the refurbishment process. This document contains some draft specification clauses which can be copied into tenders to ensure the product is handled correctly.

The selection of the new carpet or carpet tiles should take into consideration options for re-use and recycling of the product at the end of its life. The report highlights latest developments in fitting systems and adhesives used to lay the carpet, which enable easier uplift of the carpet or carpet tile. Planning for regular maintenance and cleaning will also prolong the life of the carpet, therefore reducing whole life cost and increasing the potential for re-use after the first life.

Specific emphasis has been placed upon the economic, social and environmental benefits of choosing re-use and recycling options for end-of-life carpet. The commercial sector is coming under increased pressure to divert waste from landfill. Key drivers include increasing landfill charges, zero waste targets set by larger organisations, as well as the threat of textile waste, including carpet, being banned from landfill in the future. As landfill taxes rise, carpet re-use and recycling is becoming an increasingly economically viable option.

A main driving force for carpet re-use and recycling is the environmental benefit. There is growing pressure for commercial engagement in sustainable practices and it is becoming increasingly important for facilities professionals to understand and participate in such practices. As such, the advice within this document aims to guide facilities professionals to demonstrate their Corporate Social Responsibility (CSR) and gain Building Research Establishment Environmental Assessment Method (BREEAM) credits. To achieve these environmental benefits it is important to plan early for re-use and recycling of carpets.
Contents

Report .................................................................................................................. 1
1.0 Overview ........................................................................................................ 6
2.0 Carpet Types .................................................................................................... 6
  2.1 Tufted carpets .................................................................................................. 6
    2.1.1 Description .............................................................................................. 6
    2.1.2 Composition ............................................................................................ 7
    2.1.3 Waste arising ........................................................................................... 7
    2.1.4 End-of-life application ............................................................................ 7
  2.2 Needle punched or needlefelt carpets .......................................................... 7
    2.2.1 Description .............................................................................................. 7
    2.2.2 Composition ............................................................................................ 7
    2.2.3 Waste arising ........................................................................................... 7
    2.2.4 End-of-life application ............................................................................ 8
  2.3 Woven carpets ................................................................................................ 8
    2.3.1 Description .............................................................................................. 8
    2.3.2 Composition ............................................................................................ 8
    2.3.3 Waste arising ........................................................................................... 8
    2.3.4 End-of-life application ............................................................................ 8
  2.4 Carpet tiles ...................................................................................................... 8
    2.4.1 Description .............................................................................................. 8
    2.4.2 Composition ............................................................................................ 9
    2.4.3 Waste arising ........................................................................................... 9
    2.4.4 End-of-life application ............................................................................ 9
3.0 Classifying Carpets by Type and Fibre Content for Re-use, Recycling or Energy Recovery ........................................................................................................ 10
  3.1 End-of-life carpet hierarchy ........................................................................... 10
  3.2 Social benefits of carpet tile re-use ............................................................... 11
  3.3 Classify your carpet ....................................................................................... 12
4.0 Carpet Recycling and Re-use Options ................................................................ 14
  4.1 Gate fees ........................................................................................................ 14
  4.2 Environmental legislation ............................................................................. 14
  4.3 Case studies and tips ..................................................................................... 14
  4.4 Find a recycler near you ................................................................................ 15
    4.4.1 SCOTLAND ............................................................................................. 16
    4.4.2 NORTHERN IRELAND ........................................................................ 16
    4.4.3 NORTH EAST ...................................................................................... 16
    4.4.4 NORTH WEST ..................................................................................... 16
    4.4.5 MIDLANDS ........................................................................................... 17
    4.4.6 WALES .................................................................................................. 17
    4.4.7 SOUTH EAST ....................................................................................... 17
    4.4.8 SOUTH WEST ....................................................................................... 17
5.0 Best Practice for Refurbishment Managers .................................................... 18
  5.1 Planning for carpet re-use and recycling ....................................................... 18
  5.2 Uplifting carpet tiles ...................................................................................... 18
  5.3 Uplifting broadloom carpet .......................................................................... 20
  5.4 Specification clauses for the re-use and recycling of used carpet from your refurbishment project ....................................................................................... 21
    5.4.1 Carpet tile re-use specification clause ................................................... 21
    5.4.2 Post-consumer broadloom specification clause .................................. 21
6.0 Selecting New Carpets for Your Refurbishment Project .................................. 22
  6.1 Fitting systems for carpet tiles ...................................................................... 24
6.2 Fitting systems for broadloom carpet ................................................................. 25

7.0 Planning for Regular Maintenance and Cleaning ................................................. 25
Appendix 1 .................................................................................................................. 27

Figures
Figure 1 Tufted carpet construction ............................................................................ 6
Figure 2 Needle punched or needlefelt carpet construction ......................................... 7
Figure 3 Woven carpet construction ........................................................................... 8
Figure 4 Carpet tile construction ................................................................................. 9
Figure 5 Carpet end-of-life application hierarchy ......................................................... 10
Figure 6 Example of best practice when preparing used carpet tiles for transportation ..... 19
Figure 7 Specify shrink wrapping for safe handling and carpet tile protection during transportation ...................................................................................................................... 19
Figure 8 Carpet tile technical cycle by Desso ................................................................. 20
Figure 9 Forbo Tessera random lay flooring creates a lower wastage in offcuts .......... 22
Figure 10 egetaæpper Carre Modular carpet tile with 100% recycled Econyl® pile yarn from Aquafil S.p.A ............................................................................................................................. 23
Figure 11 Traction Back® carpet tiles by Miliken eliminates the use of adhesives ....... 24
Figure 12 TacTiles™ fitting system by InterfaceFLOR eliminates the use of adhesives .... 24
Figure 13 Obex Matting Solutions by Milliken protects flooring by leaving dirt at the door . 26
## Glossary

**BREEAM**
Building Research Establishment Environmental Assessment Method, which sets the standard for best practice in sustainable design which all buildings are measured against.

**Broadloom Carpet**
Refers to large rolls of carpet, typically 12 to 15 foot (3.7 to 4.6 meters) wide, which typically are installed as wall-to-wall coverings. Historically, broadloom carpets were made on wider than average looms hence the term ‘broad’ ‘loom’.

**Carpet Tile**
Defined as square pieces of carpet usually measuring from 12 to 36 square inches (30 to 90 cm²). Carpet tiles are more commonly found in a commercial environment as their modular design offers specific benefits for that application, including easy uplift and replacement. Hardwearing nature of carpet tiles can cope with heavy footfall and movement of chairs on carpet.

**Corporate Social Responsibility (CSR)**
A form of corporate policy that goes beyond legal compliance to embrace moral responsibility. This encourages positive actions relating to the environment, consumers and employees.

**Deep cleaning**
A professional carpet cleaning process that uses hot water extraction systems or other proprietary technologies to clean deep into the carpet pile and remove ground in dirt and stains.

**Gate fee**
A gate fee or service charge related to costs which apply to the disposal of material. This charge often occurs when the revenue received from the sale of the end product does not cover the processing or operational costs.

**Post-consumer waste**
Waste produced after the product has been sold for its intended use. Post-consumer carpet waste includes clean installation offcuts and uplifted used carpet.

**Tackifier adhesive**
An adhesive used to fit carpet tiles that produces a non-permanent bond that remains tacky to the touch, which enables carpet tiles to be uplifted fully intact (whole) and repositioned in other locations.

## Acknowledgements

We would like to thank all of the companies who have contributed information and guidance for this report. These include Axion Consulting, Desso, Greenstream, Forbo and all of the recycling and re-use organisations listed within this document.
1.0 Overview
This document has been designed as a guide for facilities professionals to help identify the type of in-situ carpet on the floor, establish the best removal and end-of-life options for post-consumer carpet waste, as well as to provide best practice guidance for selecting new carpet.

Engagement in sustainable practices is becoming increasingly important in the commercial sector as it can help to demonstrate corporate awareness of the environment. Re-use and recycling of end-of-life building materials form evidence of these sustainable practices. The advice within this document will help demonstrate Corporate Social Responsibility (CSR) and gain Building Research Establishment Environmental Assessment Method (BREEAM) credits.

In particular, it is important for facilities professionals to be aware of carpet types and their re-use and recycling options as pressure increases for the commercial sector to reduce waste to landfill. Specific factors include:

- Rising landfill charges;
- Cost of removal;
- Rising pressures against unnecessary waste;
- Economic benefits by retaining commercial assets;
- Carbon emission reporting;
- Demonstration of waste avoidance; and
- Responsible disposal, where appropriate.

2.0 Carpet Types
Carpets are composite materials designed to withstand footfalls from 30,000 per year in domestic premises to more than 500,000 per year in commercial buildings. The pile fibres, pile weight and backings are the key factors controlling wear performance, but they also have a major impact on the disposal route at the end of the carpet’s life. This section provides information on the construction, material and end-of-life options for carpets most likely to arise in commercial and domestic residences managed by facilities professionals. This includes both broadloom carpet and carpet tiles which are constructed using tufted, needlefelt and woven techniques.

2.1 Tufted carpets
2.1.1 Description
Pile yarns are usually tufted into a polypropylene primary backing and then locked in place using synthetic rubber-based latex adhesive. A secondary backing fabric of either jute or more usually polypropylene is applied to impart strength and dimensional stability to the carpet.

Figure 1 Tufted carpet construction

3 Carpet Recycling UK estimates.
It is normal to use a separate underlay under tufted broadloom carpets to increase wear resistance, improve underfoot comfort and acoustics. If separate underlay is not used felt backings made from either polypropylene or polyester can be used as an alternative to impart more resilience and noise suppression.

2.1.2 Composition
Pile yarns can be cut or loop or a mixture of these to create different textural effects. Colour and design will be created either by using coloured yarns or by printing onto a white carpet. Pile yarns can be made of wool, polypropylene, nylon or polyester. Pile yarns can also utilise fibre blends (either 100% wool or a blend of 80% wool with 20% synthetic fibres and variations of these proportions).

2.1.3 Waste arising
Tufted carpet waste would usually arise from domestic residences and commercial buildings.

2.1.4 End-of-life application
Tufted carpets can be broken apart for recycling and the fibres removed for re-use in other products such as:
- Felts for carpet underlay (installation offcuts only);
- Equestrian riding surfaces;
- Plastic; and
- Fuel for energy from waste - the synthetic fibre content offers a high calorific value.

2.2 Needle punched or needlefelt carpets
2.2.1 Description
As the description implies, these carpets are made by producing a web of fibres which are entangled with needles to produce a strong hardwearing material. The web of fibres is bonded with synthetic latex which also increases wear resistance and stability in use.

2.2.2 Composition
Pile fibres are coloured and are either polypropylene or a blend of polypropylene and nylon. The nylon fibres are used to increase wear resistance. No separate backings are used. Typically these carpets are thinner than most other broadloom carpets.

2.2.3 Waste arising
Needle punched or needlefelt carpet waste usually arises from commercial properties such as offices, shops, schools or hospitals.
2.2.4 End-of-life application
Needleflet carpets that are made from 100% polypropylene can be processed to recover fibres for plastics. The polypropylene and nylon blends cannot be processed in this manner as the polymers have different melting points. These blended carpets are therefore generally diverted to energy recovery.

2.3 Woven carpets
2.3.1 Description
These carpets utilise traditional weaving processes such as Axminster and Wilton constructions. By using coloured pile yarns a wide range of designs can be produced. The woven construction uses warp and weft yarns, with the pile yarns securely locked in place by backing yarns.

Figure 3 Woven carpet construction

Woven carpets can be highly decorative, very strong and hardwearing, evidenced by their use in airports, hotels and cruise ships worldwide.

2.3.2 Composition
The pile fibres are normally wool (either 100% or a blend of 80% wool with 20% synthetic fibres) or polypropylene. Warp and weft yarns will be high strength yarns of polyester, polypropylene or jute.

2.3.3 Waste arising
Woven carpet waste usually arises from domestic residences as well as from commercial properties such as pubs, clubs, hotels and restaurants.

2.3.4 End-of-life application
Woven carpets are more difficult than tufted to pull apart for fibre recovery, but the mixed fibre combinations have re-use potential in felts if the appropriate equipment is available. Similarly to tufted carpets, woven carpet constructions can be used as fuel for power stations and cement kilns.

2.4 Carpet tiles
2.4.1 Description
Carpet tiles are easily identifiable due to their modular square shape and have been designed for application within a commercial environment. The pile yarns can be constructed using any of the manufacturing methods mentioned above, but the backings are selected to provide the high dimensional stability required specifically for tiles, which is usually achieved with woven glass fibre strengthening scrim being incorporated during manufacture.
A great advantage of tiles is that they can be taken up and re-used, either in the existing building, on the same site or in properties at other locations. Carpet tiles are engineered to perform well in the harshest commercial locations. Often, their design life of 15 years is well in excess of their fashion-led actual life of 7 to 10 years. This means a second life is well within their asset lifetime.

2.4.2 Composition
The pile fibres can be fabricated using tufted, needlefelt or woven techniques and therefore can utilise wool, synthetic fibres or blends in their construction. Tile backings are either modified bitumen or PVC for rigid construction, with resilient backings of felt or polyurethane used for higher underfoot comfort ranges.

2.4.3 Waste arising
Carpet tile waste usually arises from commercial properties such as offices, shops, schools or hospitals.

2.4.4 End-of-life application
Bitumen backing, the main backing type used in the UK, creates specific problems for recycling as the bitumen melts during size reduction whilst reprocessing. However, bitumen backed tiles do have good calorific value for energy recovery. Bespoke recovery processes by carpet tile manufacturers, such as Desso Refinity®, have been developed to recover nylon pile yarns as well as the bitumen content.
3.0 Classifying Carpets by Type and Fibre Content for Re-use, Recycling or Energy Recovery

The carpet material, structure and condition are important factors in determining the second-life application of the product. Both broadloom carpet and carpet tiles are usually designed for 15 years of use, whereas most carpets are uplifted after 7 to 10 years due to aesthetic reasons. Other reasons for early uplift include commercial re-branding, refurbishment and change of use or tenancy. Therefore, in theory the carpet structure has another 5 to 8 years of life, leaving room for a second life. The yarn and construction are commonly still in good condition but the visual style may be considered out of date or the colour choice inappropriate for modern plain office designs.

The composition of the carpet will affect the recycling options, as certain materials are not suitable for reprocessing, therefore can only be sent for use as energy to waste. Geographical location can also influence waste outlet options. The bulky nature of carpets means transporting the material long distances can be inefficient and costly.

3.1 End-of-life carpet hierarchy

There is an end-of-life hierarchy to consider for your carpets, where re-use is the most environmentally sustainable option and landfill the last consideration:

**Figure 5** Carpet end-of-life application hierarchy

The condition of the carpet will be the most important factor for determining second life options. The better the condition of the carpet the higher it can move up the end-of-life hierarchy, where re-use and recycling routes are preferable to recovery or landfill. If the carpet condition is poor, the end-of-life options move further down the hierarchy chain.

Direct re-use of the carpet tiles on the same site often presents the best option both economically and environmentally. Economic benefits occur as transportation costs may be minimised and company assets are retained. Environmental benefits occur as the material is re-used according to its original purpose with no further processing. This significantly
reduces carbon emissions (Greenhouse Gasses) by displacing the purchase of new floor coverings.\(^4\)

Broadloom carpet is generally deemed unsuitable for re-use. This is due to the difficulties of ensuring the carpet has the required dimensions for the second location and dealing with isolated wear marks. Therefore, in most cases, the highest option for broadloom carpet in the end-of-life hierarchy is recycling.

3.2 Social benefits of carpet tile re-use
As well as environmental benefits there are other significant benefits to carpet tile re-use which further strengthen its place at the top of the waste hierarchy. Working with a third sector organisation to re-use carpet tiles can also bring about considerable community and social benefits, including the provision of work placement opportunities. For example the carpet tile re-use organisation Greenstream Flooring CIC, based in Cardiff, is a social enterprise which provides national carpet re-use waste management services, whilst also offering unique social benefits. Re-used carpet tiles are sold to housing associations and start-up businesses as well as low income tenants, who could not normally afford floor furnishings.

The organisation also provides employment and training to people who struggle to find work, such as the long term unemployed and people otherwise disadvantaged. Their operation provides people with employment and a wide range of skills including carpet grading, fitting, office work and sales. A case study highlighting the way Greenstream Flooring works can be found on the WRAP website.

\(^4\) In 2009, WRAP published Meeting the UK Climate Challenge: The Contribution of Resource Efficiency. This report showed that one of the best strategies for reducing carbon emissions was re-use, which was considered as only second to waste prevention in the waste hierarchy. This research also quantifies how resource efficiency actions, as well as reducing greenhouse gas emissions, can also reduce water use, waste impacts and use of non-renewable resources. 
3.3 Classify your carpet

Use this workflow to determine your carpet type and the end-of-life options available. Click the hyperlinks for more information:

Identify your used carpet type

- **Broadloom**
- **Carpet tiles**

Is your carpet clean?

- **YES**
  - Consider re-using the carpet yourself
  - Send for re-use
  - Send your carpet tiles for recycling
  - Send your carpet tiles for energy recovery

- **NO**

Can you clean the carpet?

- **YES**
  - Go to page 13

- **NO**

Identify your broadloom carpet type

Go to page 13
Produced using a web of fibres which are entangled with needles and bonded with synthetic latex to produce a strong hardwearing material.

100% polypropylene carpets can be used to recover fibres for plastics. Nylon blends can only be diverted for energy recovery.

Tufted pile yarns can be made from wool, nylon or polyester. They are usually made with a polypropylene primary backing and then locked in place using a synthetic rubber-based latex adhesive. Often laid with a separate underlay.

Woven carpets utilise traditional weaving processes and the construction uses warp and weft yarns to lock the pile yarns in place. Designs can be highly decorative, very strong and hard wearing. Pile fibres are usually wool or polypropylene.

Consider recycling options for your underlay. PU and felt underlay can be recycled. Other forms of composite underlay are usually only viable for energy recovery. Contact the recycler directly for exact advice.

Consider re-using the carpet yourself

Send for re-use

Send your carpet for recycling

Send your carpet for energy recovery

Identify your broadloom carpet type

Needlefelt

Tufted

Woven

From page 12
4.0 Carpet Recycling and Re-use Options
Always consider the waste hierarchy when planning for end-of-life decisions for carpet. Costs for each option continuously vary depending on application, organisations should always contact the recycler or re-use organisation before a project begins. This enables an organisation to plan budgets and consider the actions required.

4.1 Gate fees
Costs will vary dependent on the organisation. In nearly all cases, there is likely to be a gate fee for accepting uplifted carpets. Gate fees or service charges are applied by carpet re-use and recycling organisations as the sales revenue generated does not offset the operational costs of the business. Distance from the location of the business will directly affect the transportation costs incurred, collection by the business will ultimately increase their processing costs but not the gate fee directly. It should be noted that if carpets are disposed of as waste rather than recycled, landfill charges will apply, therefore gate fees should always be compared to the cost of landfill. Landfill tax is increasing and will be £80 per tonne in April 2014, over and above transportation and collection charges usually associated with outsourced disposal services.

Critical factors affecting gate fee costs are:
- Volumes for recycling;
- Carpet type;
- Product quality;
- Levels of contamination, including moisture content; and
- How the material is presented.

At the time of writing this report gate fees ranged from:
- £130 to £150 per tonne for carpet tile re-use including collection costs; and
- £50 to £100 per tonne for recycling and energy from waste outlets for broadloom carpet and carpet tiles not suitable for re-use, excluding collection costs.

4.2 Environmental legislation
Information presented within this section of the report was gathered in November 2013. The information was correct at this time; however the recycler details do change regularly. We would advise to use the Carpet Recycling UK website to find a recycler near you. This website maintains accurate up to date information as well an interactive map.

Organisations are responsible for ensuring that their chosen carpet recycler complies with environmental legislation, which may require a valid waste carrier license, waste management licence or exemption. Ensure that the appropriate licenses or permits are in place at the time orders are placed.

4.3 Case studies and tips
For further information on the end-of-life options for carpets please read the carpet collection case studies on the WRAP website. These case studies focus on carpet collections and processing by Greenstream Flooring and Desso.

Top tips for investigating waste carpet outlet options
When investigating the third party recycling or re-use options you will need to provide the following information to determine the costs:
- Carpet type (broadloom, tiles or underlay);
- Current carpet condition;
- Estimated tonnage of material or square footage;
- Drop off or collection; and
- Location of the carpet.
4.4 Find a recycler near you
To determine your closest re-use and recycling outlets use the map below. Most of the carpet recycling and re-use organisations listed within this document were members of Carpet Recycling UK when the information for this report was collated. Select your region using the hyperlink, this will then provide a list of organisations that cover your region. Click the name of the organisation for more information about that recycler. The information provided includes details of accepted material types, accepted volumes and the contact details for each company.

Alternatively, please see appendix 1 for the full list of carpet re-use and recycling organisations.

Select your region
4.4.1 SCOTLAND
- Anglo Recycling Technology Ltd.
- Carpet Recycling Group
- Desso Ltd.
- ECO2 Enterprises LLP
- Greenstream Flooring CIC
- Spruce Carpets
- Waste to Energy B.V.

4.4.2 NORTHERN IRELAND
- ECO2 Enterprises LLP
- Greenstream Flooring CIC
- Waste to Energy B.V.

4.4.3 NORTH EAST
- Anglo Recycling Technology Ltd.
- Carpet Recycling Group
- Countrystyle Group
- Desso Ltd.
- ECO2 Enterprises LLP
- Greenstream Flooring CIC
- Tees Valley
- Waste to Energy B.V.

4.4.4 NORTH WEST
- Anglo Social
- Anglo Recycling Technology Ltd.
- Carpet Recycling Group
- Countrystyle Group
- Desso Ltd.
- ECO2 Enterprises LLP
- Econpro WDS Ltd.
- Greenstream Flooring CIC
- Greenstream North West
- Griffiths Waste Management
- H Brown and Son (Recycling) Ltd.
- Lancashire Carpet Re-use and Recycling
- Valley Equestrian
- Waste to Energy B.V.
4.4.5 MIDLANDS
- Anglo Recycling Technology Ltd.
- Carpet Recycling Group
- Carpet Tile Recycling
- Countrystyle Group
- Desso Ltd.
- ECO2 Enterprises LLP
- Greenstream Flooring CIC
- Griffiths Waste Management
- H Brown and Son (Recycling) Ltd.
- H W Martin Waste Ltd.
- Roade Fibres Ltd.
- Tailby Brack Ltd. t/a Cwikskip
- Wastecycle Ltd.
- Waste to Energy B.V.

4.4.6 WALES
- Anglo Recycling Technology Ltd.
- Carpet Recycling Group
- Carpet Tile Recycling
- Desso Ltd.
- ECO2 Enterprises LLP
- Greenstream Flooring CIC
- Griffiths Waste Management
- Waste to Energy B.V.

4.4.7 SOUTH EAST
- Anglo Recycling Technology Ltd.
- Carpet Recycling Group
- Carpet Tile Recycling
- Countrystyle Group
- Desso Ltd.
- ECO2 Enterprises LLP
- Greenstream Flooring CIC
- Griffiths Waste Management
- Waste to Energy B.V.

4.4.8 SOUTH WEST
- Anglo Recycling Technology Ltd.
- Carpet Recycling Group
- Carpet Tile Recycling
- Countrystyle Group
- Desso Ltd.
- ECO2 Enterprises LLP
- Greenstream Flooring CIC
- Griffiths Waste Management
- Waste to Energy B.V.
5.0 **Best Practice for Refurbishment Managers**

It is essential that planning for refurbishment includes careful consideration for existing floor coverings. Specifications for refurbishment should include a decision-making process to consider how carpets might be re-used in a second life, rather than disposal in general waste site skips.

5.1 **Planning for carpet re-use and recycling**

Re-use by a third party, recycling and energy from waste applications require specialist testing to determine the material content and structure. In order to plan correctly for end-of-life options some re-use and recycling organisations may require a small sample of the carpet to be sent to them for testing, some only require photographs of the carpet. This will help determine the cost and final application of the carpet, allowing you to factor the cost into your project plan. Refer to the [classifying your carpet](#) section for more information on your recycling and re-use options.

We advise that you plan to uplift your carpet as soon as possible in the refurbishment project. This will ensure that the carpet is in good condition on uplift; the better the condition of the carpet the better the re-use and recycling options. It is best to specify who you want to uplift the carpet and how you want them to handle it at the tender stage. This task is commonly completed by strip-out contractors; however we would recommend that with regard to carpet tile re-use you ask the re-use company to quote for the flooring uplift as well.

### Top tips for planning carpet uplift

When uplifting used carpet we advise you:
- Uplift as early as possible in the refurbishment project;
- Where cost effective, instruct a carpet tile re-use company to uplift the carpet;
- Specify to contractors how you want the carpet to be handled;
- Keep the carpet dry;
- Separate different carpet types;
- Keep the carpet free from plaster dust; and
- Specify good quality pallets and shrink wrap for transportation.

5.2 **Uplifting carpet tiles**

Special attention should be given to carpet tiled areas as these have the greatest potential for re-use. Re-use should be considered within the same buildings or via an external re-use organisation. Carpet tiles should be carefully uplifted, palletised and shrink wrapped to achieve the best value from re-use and recycling. In multi-floor buildings wheeled cages can be utilised as long as they fit into lifts and weight restrictions are observed.

For transportation, complete carpet tiles should be placed on pallets in four piles, face to face to protect the pile and shrink wrapped to avoid edge damage. This also stabilises the load for safety and protection during transit. Carpet tile offcuts can be placed in bulk bags on pallets for recycling via the suppliers take back network. All pallets should be stored in a dry location with fork lift access for collection.
**Figure 6** Example of best practice when preparing used carpet tiles for transportation

Before specifying tiles for re-use, check that they have been laid using *tackifier adhesive* or other systems which ensure the tiles can be cleanly removed without subfloor or tile damage. This will reduce the risk of adhesive or screed contamination.

**Figure 7** Specify shrink wrapping for safe handling and carpet tile protection during transportation

When considering carpet tiles for re-use take precautions to ensure they are suitably clean. It is often easier to clean them in situ with a twin motor upright vacuum cleaner, or even by *deep cleaning*. This is advised even if they are going to be re-used in the existing building estate.

Guidelines for recovery of tiles are provided by companies specialising in tile re-use, details of which can be found on this [Carpet Recycling UK list of carpet recycling and re-use specialists](https://www.carpetrecycling.org.uk).
Some suppliers such as Desso with their Take Back® option provide a closed loop opportunity for tiles to be deconstructed and the materials re-used in new tiles. See the figure below for details of the Desso closed loop carpet tile recycling system.

**Figure 8** Carpet tile technical cycle by Desso

5.3 Uplifting broadloom carpet

When broadloom carpets are uplifted for recycling they should be split into sections and put into bags or small rolls to fit on pallets. Shrink wrapping of palletised material is recommended to ensure safe handling and transport to the recycler.

Fitting systems for broadloom carpets should also be checked as this will influence the recycling or energy recovery process. Directly bonded broadloom will be more difficult to remove, as there is the potential for sub floor damage during uplift and it is likely to be only suitable for energy recovery. Carpet laid on underlay can be removed cleanly and can be recycled for fibre recovery.

Underlay should not be mixed with the carpets as different recycling options apply for the different types. Felt underlays can be recycled for fibre recovery, but polyurethane and rubber will require guidance from their respective suppliers.

If the pile fibre type is known, the carpets should be identified on the shipping unit by fixing a label which states ‘wool blends’ or ‘mixed synthetics’, as each will have different recycling options for fibre recovery. As an example, wool blends are not suitable for equestrian surfaces but mixed synthetics are acceptable.
Top tips for storage and disposal of your carpets

- **Carpet tiles** should be carefully uplifted, stacked well to avoid creases and cracks in the backing, palletised and shrink wrapped. In multi-floor buildings wheeled cages can be utilised as long as they fit into lifts and observe weight restrictions;

- **Broadloom carpets from commercial properties** should be split into sections and put into bags or small rolls to fit on pallets. Shrink wrapping of palletised material is recommended to ensure safe handling and transport to the recycler; and

- **Underlay** should not be mixed with the carpets and therefore requires separate storage. Felt underlays can be recycled for fibre recovery, but polyurethane and rubber will require guidance from their respective suppliers.

5.4 Specification clauses for the re-use and recycling of used carpet from your refurbishment project

It is best practice to specify re-use or recycling for uplifted carpet tiles or broadloom carpet at the project tendering stage. This ensures that collection and recycling costs are factored into the project from the start and that the material will be diverted from landfill.

Effective management and reduction of construction waste from your refurbishment project can result in up to 4 credits for BREEAM, the environmental assessment method and rating system for buildings. Ensuring that the carpets are re-used or recycled will help to gain the credit which is available for the diversion of resources from landfill.5

The following clauses summarise the steps the removal contractor should take to arrange for the carpet tiles or broadloom carpet to be re-used or recycled. They can be copied and pasted into any instruction, specification or contract document.

5.4.1 Carpet tile re-use specification clause

- Carpet tiles to be uplifted by the removal contractor at the earliest possible stage in the refurbishment process to ensure that they stay clean and uncontaminated;

- Carpet removal contractor must supply pallets and shrink wrap;

- Pallets must be in good condition;

- Full carpet tiles should be stacked 4 tiles per layer to a maximum height of 120 layers or 1.2m. This is approximately 480 tiles per pallet;

- Every 40 layers a single full tile to be placed in the centre of the stack overlapping each of the four piles to lock in the separate stack;

- Tiles must be shrink wrapped securely to the pallet to ensure they do not move during transport; and

- Off cuts from the installation process should be placed in bulk bags on pallets ready for collection.

5.4.2 Post-consumer broadloom specification clause

- Carpet removal contractor to contact the recycler in the project planning stages to:
  - Establish suitability of the carpet for the recycling process. Some recycling organisations may require a small sample of the carpet to be sent to them for testing, others may only require photographs of the carpet;
  - Agree best collection container for the carpet;

- If carpets are rolled when uplifted you should ensure that there is no debris or contamination in the rolls;

---

5 [http://www.breeam.org/BREEAM2011SchemeDocument/Content/10_Waste/Wst01.htm](http://www.breeam.org/BREEAM2011SchemeDocument/Content/10_Waste/Wst01.htm)
- Uplifted carpet should be kept out of the general waste stream and in a separate container on site; and
- Carpet to be kept dry for shipping and processing.

### 6.0 Selecting New Carpets for Your Refurbishment Project

In a survey of flooring specifiers undertaken by Palmer Market Research in 2012, 40% of respondents stated that environmental issues were the first or second most important consideration for specification of floorcoverings.\(^6\) According to Palmer, the importance of environmental issues to specifiers in choosing floorcoverings has doubled in two years. Key considerations included recyclability at end-of-life, recycled content of product, life-cycle assessments and emissions during manufacture.

Whether choosing broadloom or tiles for a project, there are key factors to be considered on sustainability and whole life costs, including end-of-life re-use or recycling. Decorative effect will usually influence the choice for large areas in hotels, leisure, travel and retail premises, so broadloom is selected. Many of these carpets are traditional woven construction with wool blends or polypropylene as the pile fibres. Consult suppliers about the factors which affect wear such as pile weight, pile density and yarn type, as an extended wear life lowers cost of ownership and increases sustainability value.

Carpet tiles are likely to be selected for commercial buildings where their flexibility is required for underfloor access, layout changes or repairs to damaged areas. Carpet tiles offer a lower wastage level during installation with some random lay tiles as low as 1.5% compared with 4% to 5% for directional laid tiles and up to 10% for broadloom. This gives advantages in lower material usage.

**Figure 9** Forbo Tessera random lay flooring creates a lower wastage in offcuts

Carpet testing is usually to EN1307 (pile carpets) or EN1470 (needlefelt carpets) for suitability in use, plus EN 14041 for CE labelling.

The BRE Environmental Profiles of carpets and tiles rate products on their environmental impacts from manufacturing and in use. Details can be found on the BRE website [here](http://www.carpetrecyclinguk.com/downloads/7_CRUK_Ecobuild_13_Robert_Palmer_Palmer_Market_Research.pdf).
The European carpet classification system is a guide for assessing products, showing the balance between luxury versus wear performance. Details can be found on the PRODIS website here.

For more luxurious underfoot comfort and extended life, the selection of underlay is important for broadloom. In large open areas where stretch fit underlay is not feasible, then double stick with underlay will give similar underfoot comfort and improved wear life.

Carpet tiles are also available with built-in soft backings to improve underfoot comfort. Not only is the luxury aspect improved by underlay, but wear-life can be extended by up to 20% with the resilient backings absorbing foot shocks to the pile.

Consider specifying carpet that contains recycled content. Increased recycled content helps to reduce the environmental footprint of the product, by minimising the need for virgin material and ultimately reducing the embodied energy of the product. The main elements of a carpet or carpet tile that include recycled content are Nylon 6 and Nylon 66 yarns and secondary backings.7

Several manufacturers now produce bulked continuous filament (BCF) nylon yarns with recycled content, such as Aquafil S.p.A., Invista and Universal Fibres. The nylon yarn manufacturer Aquafil S.p.A. for example has developed a product called Econyl, which is made out of 100% recycled nylon fibres from fishing nets as well as from post-consumer carpet fibres. For more information on the benefits of recycled content in carpets we recommend reading the suite of WRAP case studies on resource efficiency in carpet manufacture available on the WRAP website.

Figure 10 egetæpper Carre Modular carpet tile with 100% recycled Econyl® pile yarn from Aquafil S.p.A

---

6.1 Fitting systems for carpet tiles

Carpets and carpet tiles which can be removed cleanly from the subfloor will increase recycling opportunities. Contamination with screed, or adhesive makes it almost impossible to recover pure materials. However, it is accepted that adhesives have to be used for certain installations particularly large open areas in commercial buildings. Energy recovery is the best disposal route for contaminated carpets.

Carpet tiles will usually be fitted using a **tackifier adhesive**. Tackifier adhesive is a non-permanent bond or release adhesive. It enables tiles to be uplifted and repositioned easily as it remains tacky. This allows valued access to underfloor services and for replacement of individual damaged tiles. Care must be taken to ensure the tackifier adhesive is dry before laying tiles or a permanent bond will result and tiles will be unsuitable for re-use.

The modular design of carpet tiles means that they can be uplifted easily at the end of their first life and re-used in other parts of the building estate or for a second life elsewhere. Carpet tiles have a design life of more than fifteen years but in practice are replaced much earlier for aesthetic reasons, such as building refurbishments. This provides an ideal opportunity for re-use.

New systems are being developed to eliminate the use of adhesives by changing backings, e.g. Traction Back® a high-friction lightweight coating, developed by Milliken which also eliminates the need to seal floors before installation. Another approach is to use adhesive free corner pads to bind the tiles together, such as TacTiles® from InterfaceFlor. These new systems will reduce raw materials used, allow quicker fitting and make clean uplift easier.

**Figure 11** Traction Back® carpet tiles by Miliken eliminates the use of adhesives

![Traction Back® carpet tiles by Miliken](image1)

**Figure 12** TacTiles™ fitting system by InterfaceFLOR eliminates the use of adhesives

![TacTiles™ fitting system by InterfaceFLOR](image2)
Tile backings in the UK are predominantly bitumen based, with a minority being PVC. Manufacturers are also developing new types of tile backings to improve recyclability, increase the lifespan of the product or to improve comfort underfoot. Examples of this include Forbo’s Tessera Softbac which has been designed to act as an underlay and increase both sound and thermal insulation and Desso Ecobase®, which uses a polymeric backing to increase recyclability. Such alternative tile backings should be kept separate for disposal as their recycling outlets are different. The supplier would be able to advise the best options.

When fitting carpet tiles all excess material offcuts should be recycled. Carpet tile suppliers will advise on the take back options for these offcuts. Take back schemes include the Forbo scheme Back to the Floor, for take back of Tessera carpet tile off cuts and the Desso Take Back scheme. Generally offcuts must be kept dry and separate from other materials. Bulk bags or containers can be used, but must be suitable for easy handling in removal from the premises. Bulk bags should be placed on pallets as they are likely to be above manual handling weights when filled.

6.2  Fitting systems for broadloom carpet

Broadloom carpets will most likely be fitted with one of 3 systems:

- **Stretch fitted carpet on underlay.** This is recommended in BS 5325:2001 which states that carpet stretch fitted over 5 metres in length or width should be power stretched to obtain a sufficient degree of stretch. Both the carpet and underlay can be cleanly uplifted and recycled for material recovery at end-of-life;

- **Direct stick to subfloor with permanent adhesive.** This system results in possible contamination with adhesive and screed when uplifted. Energy recovery is recommended in this case; and

- **Double stick with permanent adhesive of carpet to underlay and tackifier adhesive between underlay and sub floor.** Energy recovery is recommended as carpet and underlay cannot be separated when uplifted.

When fitting broadloom carpet all excess material offcuts should be recycled. Suppliers will be able to advise on the take back options for these offcuts. Generally they must be kept dry and separate from other materials. Bulk bags or containers can be used but must be suitable for easy handling in removal from the premises. Bulk bags should be placed on pallets as they are likely to be above manual handling weights when filled.

7.0  Planning for Regular Maintenance and Cleaning

Planning a maintenance schedule from day one will ensure that your carpet has the longest possible life before replacement is needed. Here are the key factors to consider for maintaining the life of new carpets:

- Barrier or walk-off matting at all entrance points will work effectively to remove the majority of dirt and water brought in on shoes, before reaching the carpets. Seek advice from suppliers on optimum barrier mat size according to foot traffic levels. Barrier matting also reduces the likelihood of slips from wet floors, therefore protecting building users;

- Daily vacuum cleaning of the high traffic areas with a twin motor upright vacuum will remove the particles of dirt and grit out of the pile before they grind in and damage fibres;

- Removal of spills and stains before they get trodden into the pile should be part of the house-keeping service. This relies on cooperation from users as soon as they see spills; and

- Professional deep cleaning should be scheduled with advice from the supplier according to levels of foot traffic. This can range from monthly to annually for different building areas.
Deep cleaning is the process used by professional carpet cleaners. They use hot water extraction systems or other proprietary technologies to clean deep into the carpet pile and remove ground in dirt and stains. Local carpet cleaning professionals can be contacted via the National Carpet Cleaners Association.

Following a planned maintenance schedule will result in a carpet that lasts longer, reduces whole life cost and has more potential for re-use after the first life.⁸

Figure 13 Obex Matting Solutions by Milliken protects flooring by leaving dirt at the door

---

⁸ Carpet Recycling UK estimates.
Appendix 1

Details of carpet re-use and recycler organisations within the United Kingdom

**Anglo Social**
- **Address:** c/o Anglo Recycling Technology Ltd, Tong Lane, Whitworth, Rochdale, OL12 8BG
- **Tel:** 01706 853513
- **Website:** [www.anglosocial.org.uk](http://www.anglosocial.org.uk)
- **Application:** Re-use
- **Material accepted:** New and post-consumer carpet tiles
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Acceptance criteria:** Dry, palletised tiles
- **Delivery times:** 07.30 to 18.30
- **Site services:** Customer service desk and forklift available
- **Volumes accepted:** From 1 to 8 tonnes (1 to 10 pallets)
- **Gate fee:** Price available on request, dependent on quality, distance and volume

**Anglo Recycling Technology Ltd**
- **Address:** Tong Lane, Whitworth, Rochdale, Lancashire, OL12 8BG
- **Tel:** 01706 853513
- **Website:** [www.angloreycling.com](http://www.angloreycling.com)
- **Application:** Recycling
- **Material accepted:** Post-industrial, post-installation wool and synthetic broadloom carpet and underlay
- **Acceptance criteria:** Dry, palletised, baled or in 1 tonne bulk bags
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 07.30 to 17.00 Monday to Friday
- **Site services:** Customer service desk, PPE required and forklift available
- **Volumes accepted:** From 1 to 20 tonnes
- **Gate fee:** No gate fee – transport collection at cost

**Carpet Recycling Group**
- **Address:** Barkston Heath Warehousing Complex, Ermine Street, Barkston Heath, Grantham, Lincolnshire, NG32 3QG
- **Tel:** 0800 148 8299
- **Website:** [www.carpet-recycling.com](http://www.carpet-recycling.com)
- **Application:** Recycling and energy from waste
- **Waste management license number:** EPR/GP3599LF
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay, carpet tiles, commercial direct stick and PU foam
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Acceptance criteria:** Wet or dry, ex-waste transfer station, ex-HWRC, palletised, baled or loose
- **Delivery times:** 09.00 to 16.00 Monday to Friday
- **Site services:** PPE required, weighbridge and forklift available, no artic tippers
- **Volumes accepted:** Direct deliveries, minimum 1 tonne. Bulk collections by roros (local only) and arctic (nationwide)
- **Gate fee:** Price available on request, dependent on quality, distance and volume
### Carpet Tile Recycling
- **Address:** 27 Forester Street, Nottingham, NG4 2LJ
- **Tel:** 0115 940 4454
- **Website:** [www.carpettilerecycling.co.uk](http://www.carpettilerecycling.co.uk)
- **Application:** Re-use
- **Waste management license number:** CB/FE5059GR
- **Material accepted:** New and post-consumer carpet tiles
- **Acceptance criteria:** Dry and palletised tiles
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** By appointment only
- **Site services:** Customer service desk, forklift available and no vehicles without prior authorisation
- **Volumes accepted:** From 1 to 50 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume

### Countrystyle Group
- **Address:** Ashford Road, Lenham, Maidstone, Kent, ME17 2DL
- **Tel:** 0844 880 7700
- **Website:** [www.countrystylegroup.co.uk](http://www.countrystylegroup.co.uk)
- **Application:** Energy from waste
- **Waste management license number:** EAWML/10066
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay, carpet tiles and commercial direct stick
- **Acceptance criteria:** Wet or dry, ex-waste transfer station, ex-HWRC, palletised, baled or loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 07.00 to 18.00 Monday to Friday, Saturday 07.00 to 12.00
- **Site services:** Customer service desk, PPE required, weighbridge, forklift available, low bridge (max height 4.2m)
- **Volumes accepted:** From 1 to 25 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume

### Desso Ltd
- **Address:** Hitching Court, Abingdon Business Park, Abingdon, Oxfordshire, OX14 1RB
- **Tel:** 01235 554 848
- **Website:** [www.desso-businesscarpets.com](http://www.desso-businesscarpets.com)
- **Application:** Recycling
- **Waste management license number:** CB/UE5007UE
- **Waste exemption certificate number:** EPR/XH0066ZM/A001
- **Material accepted:** Bitumen backed carpet tiles, any manufacturer, part or full tiles
- **Deliveries accepted:** No
- **Collection service available:** Yes
- **Acceptance criteria:** Dry, palletised
- **Delivery times:** N/A – collection service only
- **Site services:** N/A
- **Volumes accepted:** No minimum or maximum
- **Gate fee:** Price available on request, dependent on quality, distance and volume
ECO2 Enterprises LLP
- **Address:** Phoenix Works, Phoenix Way, Burnley, Lancashire, BB11 5SX
- **Tel:** 01282 834981
- **Website:** [www.equestriansurfaces.co.uk](http://www.equestriansurfaces.co.uk)
- **Application:** Recycling
- **Waste exemption certificate number:** NSI/004807
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay, carpet tiles, vinyl
- **Acceptance criteria:** Dry, ex-waste transfer station, ex-HWRC, palletised, baled or loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 06.00 to 18.00 Monday to Friday
- **Site services:** Customer service desk, PPE required, weighbridge and forklift available
- **Volumes accepted:** 1 to 22 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume

Econpro WDS Ltd
- **Address:** Unit 13a Deeside Industrial Estate (Zone 1 Central), Drome Road, Deeside, Flintshire, CH5 2LR
- **Tel:** 01244 289003
- **Website:** [www.econpro.co.uk](http://www.econpro.co.uk)
- **Application:** Recycling and energy from waste
- **Waste exemption certificate number:** HE5889WK
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay and commercial direct stick
- **Acceptance criteria:** Dry, ex-waste transfer station, ex-HWRC, palletised, baled or loose
- **Deliveries accepted:** Yes
- **Collection service available:** No
- **Delivery times:** 07.00 to 17.30 Monday to Friday
- **Site services:** Customer service desk, PPE required, weighbridge and forklift available
- **Volumes accepted:** 1 tonne to 26 tonnes at gate
- **Gate fee:** Price available on request, dependent on quality, distance and volume

Greenstream Flooring CIC
- **Address:** 3 Rheola Industrial Estate, Porth, Rhondda Cynon Taff, CF39 0AD
- **Tel:** 0330 321 1345
- **Website:** [www.findcarpettiles.co.uk](http://www.findcarpettiles.co.uk)
- **Application:** Re-use
- **Waste exemption certification number:** EPR/CE5208AG/A0001
- **Material accepted:** New and post-consumer carpet tiles
- **Acceptance criteria:** Dry, palletised tiles
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 09.00 to 17.00 Monday to Friday
- **Site services:** Customer service desk and forklift available
- **Volumes accepted:** From 1 to 15 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume
Greenstream North West
- **Address:** Building K, Glenfield Park, Philips Road, Blackburn, BB1 5PF
- **Tel:** 0330 321 1345
- **Website:** [www.findcarpettiles.co.uk](http://www.findcarpettiles.co.uk)
- **Application:** Re-use
- **Waste management license number:** PCD/GE5285NS
- **Material accepted:** New and used carpet tiles
- **Acceptance criteria:** Dry and palletised tiles, full tiles only, no off-cuts
- **Deliveries accepted:** Yes
- **Collection service available:** No
- **Delivery times:** 08.00 to 17.00 Monday to Friday
- **Site services:** PPE required, forklift available
- **Volumes accepted:** No minimum or maximum
- **Gate fee:** Price available on request, dependent on quality, distance and volume

Griffiths Waste Management
- **Address:** Former JR Steelworks, Bryntywod, Llangyfelach, Swansea, SA5 7LE
- **Tel:** 01792 795829
- **Website:** [www.griffithsrecycle.co.uk](http://www.griffithsrecycle.co.uk)
- **Application:** Recycling and energy from waste
- **Waste exemption certificate number:** EPR/YE5734FE/A001
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay
- **Acceptance criteria:** Wet or dry, ex-waste transfer station, ex-HWRC, palletised, baled or loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 07.00 to 16.30 Monday to Friday
- **Site services:** PPE required, weighbridge and forklift available
- **Volumes accepted:** 1 to 24 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume

H Brown and Son (Recycling) Ltd
- **Address:** Vanguard House, Sneyd Hill, Burslem, Stoke-on-Trent, Staffordshire, ST6 2DZ
- **Tel:** 01782 816520
- **Website:** [www.brownrecycling.co.uk](http://www.brownrecycling.co.uk)
- **Application:** Energy from waste
- **Waste management license number:** EA/WML/42014 or EA/WML/102279
- **Waste exemption certification number:** EPR/XF0030ZT/A001
- **Material accepted:** Post-industrial, post-consumer and post-installation wool and synthetic broadloom carpet and underlay, carpet tiles and commercial direct stick tiles
- **Acceptance criteria:** Dry, ex-HWRC, palletised, baled or loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 07.00 to 17.00 Monday to Friday
- **Site services:** Customer service desk, PPE required, weighbridge and forklift available
- **Volumes accepted:** From 3 to 25 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume
**H W Martin Waste Ltd**
- **Address:** Northampton Recycling, Centre, Unit A, Edgemead, Close, Round Spinney, Industrial Estate, Northampton, NN3 8RG
- **Tel:** 01773 860600
- **Website:** [www.hwmartin.com/recycling](http://www.hwmartin.com/recycling)
- **Application:** Energy from waste
- **Waste management license number:** EP2/DB3138RA
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay, carpet tiles and commercial direct
- **Acceptance criteria:** Dry, ex-waste transfer station, ex-HWRC or loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 06.00 to 17.00 Monday to Friday, Saturday 06.00 to 12.00
- **Site services:** PPE required and weighbridge
- **Volumes accepted:** 8t minimum, no limit
- **Gate fee:** Price available on request, dependent on quality, distance and volume

**Lancashire Carpet Re-use and Recycling CIC**
- **Address:** Unit 9 Springhill Works, Edleston Street, Accrington, Lancashire, BB5 0HG
- **Tel:** 01254 519 60
- **Website:** [www.lancashirecarpetrecycling.co.uk](http://www.lancashirecarpetrecycling.co.uk)
- **Application:** Re-use and recycling
- **Material accepted:** Post-installation and post-consumer carpet tiles
- **Acceptance criteria:** Dry, ex-waste transfer station, ex-HWRC, palletised, baled and loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 09.00 to 17.00 Monday to Friday
- **Site services:** N/A
- **Volumes accepted:** Up to 5 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume

**Roade Fibres Ltd**
- **Address:** The Old Cattle Sheds, Gayton Road, Kislingbury, Northampton, NN7 3JA
- **Tel:** 07831 324046
- **Website:** [www.roadefibres.com](http://www.roadefibres.com)
- **Application:** Recycling
- **Waste management license number:** NER 3000 59/WHSNL SNC S/20B/0921/PC
- **Waste Exemption Certificate number:** SE 5850RW
- **Material accepted:** Post-industrial, post-consumer, post-installation synthetic broadloom carpet and underlay, no rubbish, grippers or wood
- **Acceptance criteria:** Wet or dry, ex-waste transfer station, ex-HWRC, palletised, baled and loose
- **Deliveries accepted:** Yes
- **Collection service available:** No
- **Delivery times:** 07.30 to 16.30
- **Site services:** Forklift available
- **Volumes accepted:** 2 to 30 tonnes per week
- **Gate fee:** Price available on request, dependent on quality, distance and volume
### Spruce Carpets
- **Address:** 308 Broomloan Road, Glasgow, G51 2JQ
- **Tel:** 0141 425 1555
- **Website:** [www.sprucecarpets.org.uk](http://www.sprucecarpets.org.uk)
- **Application:** Re-use
- **Waste exemption certification number:** WML/XS/1104370
  - **Material accepted:** Broadloom synthetic (unused), broadloom wool (unused), carpet tiles and underlay. Donations of ‘pre-loved’ domestic carpets only not large scale post-consumer
- **Acceptance criteria:** Dry, palletised (tiles) and loose (broadloom)
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 08.30 to 16.30 Monday to Friday, Saturday morning by arrangement
- **Site services:** Customer service desk, tight entrance on approach for large vehicles but forklift available for unloading from main road
- **Volumes accepted:** From 0.86 to 13 tonnes (2 to 30 pallets)
- **Gate fee:** Price available on request, dependent on quality, distance and volume

### Tailby Brack Ltd, t/a Cwikskip
- **Address:** Butlers Leap, Rugby, CV21 3RQ
- **Tel:** 01788 221915
- **Website:** [www.cwikskipwastemanagementrugby.co.uk](http://www.cwikskipwastemanagementrugby.co.uk)
- **Application:** Recycling and energy from waste
- **Waste management license number:** 48099/48251/48250/102213EPR/RP3095CR
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay, carpet tiles and commercial direct stick
- **Acceptance criteria:** Wet or dry, ex-waste transfer station, ex-HWRC, palletised, baled or loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 08.00 to 17.00 Monday to Friday, Saturday 08.00 to 12.00
- **Site services:** Customer service desk, PPE required, weighbridge and forklift available
- **Volumes accepted:** Minimum depends on area, maximum is 16,000 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume

### Tees Valley
- **Address:** 175-179 Snowdon Rd, Middlesbrough, TS2 1DB
- **Tel:** 01642 248230
- **Website:** [www.teesvalleyrecycling.co.uk](http://www.teesvalleyrecycling.co.uk)
- **Application:** Re-use
- **Waste exemption certificate number:** CE5206SY
- **Material accepted:** New and post-consumer carpet tiles, clean offcuts and carpet waste
- **Acceptance criteria:** Wet or dry, palletised, baled or loose tiles
- **Deliveries accepted:** Yes
- **Collection service available:** Yes but prefer materials to be delivered
- **Delivery times:** 07.00 to 18.00
- **Site services:** Customer service desk, PPE requirements, forklift available
- **Volumes accepted:** No limit to delivered materials
- **Gate fee:** Price available on request, dependent on quality, distance and volume
Valley Equestrian

- **Address:** Unit 8, Bradley Fold Industrial Estate, Radcliffe Moor Road, Bolton, BL2 6RT
- **Tel:** 01204 373 330
- **Website:** [www.valleyrecycling.co.uk](http://www.valleyrecycling.co.uk)
- **Application:** Recycling
- **Waste management license number:** CB/XM3788BZ
- **Waste Exemption Certificate number:** EPR/EE5400PC/A001
- **Material accepted:** Post-industrial, post-consumer, synthetic broadloom carpet and automotive carpet
- **Delivery requirements:** Dry, ex-HWRC, palletised, baled and loose rolls of carpet
- **Deliveries accepted:** Yes
- **Collection service available:** No
- **Delivery times:** 08.00 to 17.30 Monday to Thursday, Friday 08.00 to 14.30
- **Site services:** Forklift available
- **Volumes accepted:** 2 to 30 tonnes per week
- **Gate fee:** Price available on request, dependent on quality, distance and volume, no gate fee for post-industrial synthetic broadloom carpet

Wastecycle Ltd

- **Address:**
  - Enviro Building, Private Road No 4, Colwick Industrial Estate, Nottingham, NG4 2JT
  - Treatment and Recycling Centre, Wesley Street, Leicester, LE4 5PZ
  - Treatment and Recycling Centre, Enderby Road Industrial Estate, Whetstone, Leicester, LE8 6HZ
- **Tel:** 0115 9403111
- **Website:** [www.wastecycle.co.uk](http://www.wastecycle.co.uk)
- **Application:** Energy from waste and recycling
- **Waste management license numbers:** WML/43455, EPR/SP3490CA, EPR/EB3939DQ and EPR/EB3939AD
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay, carpet tiles and commercial direct stick
- **Acceptance material:** Dry, ex-waste transfer station, ex-HWRC, palletised, baled and loose
- **Deliveries accepted:** Yes
- **Collection service available:** Yes
- **Delivery times:** 24 hours
- **Site services:** Customer service desk, PPE requirements, weighbridge and forklift
- **Volumes accepted:** 2 to 15 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume

Waste to Energy bv

- **Address:** Tolboomweg 1a, NL 3784 XC Terschuur, Netherlands
- **Tel:** 00 31 342 462824
- **Website:** [www.waste-to-energy.nl](http://www.waste-to-energy.nl)
- **Application:** Energy from waste
- **Waste exemption certificate number:** UT501676XXHB
- **Material accepted:** Post-industrial, post-consumer, post-installation wool and synthetic broadloom carpet and underlay, carpet tiles and commercial direct stick
- **Deliveries accepted:** N/A
- **Collection service available:** Yes
- **Delivery times:** N/A
- **Site services:** Collect on walking floor loose or curtain side trailers baled
- **Volumes accepted:** 15 to 10,000 tonnes
- **Gate fee:** Price available on request, dependent on quality, distance and volume