

Collection of carpet tiles from businesses for re-use

Social enterprise, Greenstream Flooring, collects carpet tiles for resale through its warehouse and online store. By sorting and cleaning tiles it maximises the amount of material diverted for re-use and bring social benefits to the local community.



Collection of carpet tiles for re-use: Porth, Rhondda Cynon Taf, Wales

This case study provides an example of the collection post-consumer carpet tiles from businesses. The collection is either undertaken by Greenstream using its own vehicle, or by a sub-contractor.

Key facts

- Organisation: Greenstream Flooring CIC
- Type of business: Social Enterprise
- Location: Porth, Rhondda Cynon Taf, Wales
- Type of non-textile: Post-consumer carpet tiles from commercial sources
- Type of collection: Collection from businesses
- Tonnes collected per year (2012): 213 tonnes carpet tiles
- Re-use rate (2012): 80%
- Number of employees: 5 full time, 1 part time and 3 volunteers/back-to-work placements.

Introduction and background

Greenstream Flooring (formerly Cleanstream Carpets) is based in South Wales and has been in operation since 2008.

Carpet tiles can have a lifetime of over 20 years, but are often replaced after just 5 or 10 years. It has been reported that over 50,000 tonnes of carpet tiles are manufactured in the UK each year and over 90% of post-consumer tiles go to landfill. Greenstream Carpets captures tiles, sorts them and sells them on as green affordable flooring to housing associations, small businesses, community enterprises and individuals where they typically displace new tiles or low grade rolled cord carpet. As well as diverting carpet tiles from landfill, as a social enterprise, Greenstream also creates jobs and training opportunities.

Description of the operation

Greenstream Carpets operates from a large warehouse in Porth, South Wales, collecting and re-using post-consumer carpet tiles from commercial establishments. For collections involving less than 200m² of carpet tiles they usually use their own 3.5 tonne van and driver to collect. This vehicle may also be used in cases where access for a larger vehicle is not possible. Greenstream Carpets also offers an uplifting service for tiles on demand, which can be undertaken manually or using a floor stripper.

The majority of collections of tiles by volume are undertaken using a haulage sub-contractor, which maximises transport efficiency. Carpet tiles collected in this way must be palletised and shrink wrapped for ease of transport. Each pallet typically contains ~100m² (0.6 tonne) of carpet tiles. These must remain dry to ensure they can be re-used.

The carpet tiles are delivered to the Greenstream Flooring warehouse in Porth, South Wales, where they are hand sorted by volunteers and staff into different product grades for resale. These are:

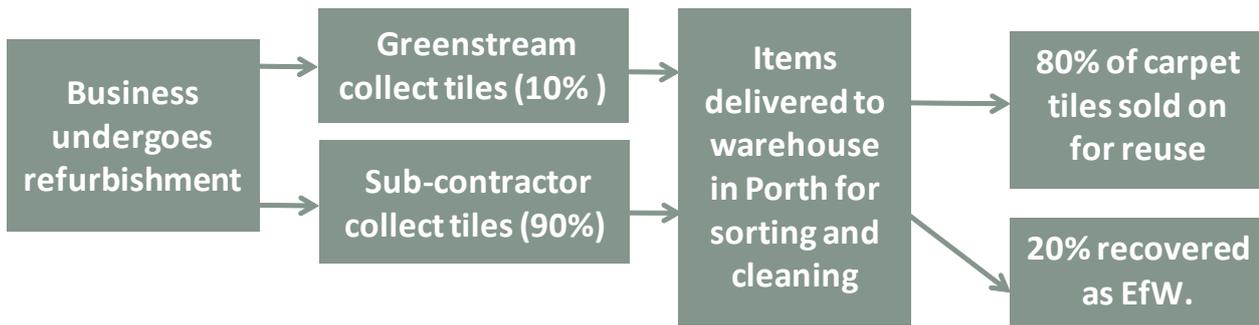
Grade A: Tiles nearly new or end of line, not faded, worn or soiled.

Grade B: Tiles that have some wear or are slightly faded.

Grade C: Tiles that are relatively worn, with some soiled or faded tiles.

Approximately 80% of the tiles sorted are re-usable, and are sold either directly from the site in Porth or on the Greenstream eBay shop. The remaining 20% is either offcuts or are too damaged or worn to be re-used. These are donated for more small scale re-use such as floor

coverings for garages or animal shelters or garden winter protection. Those that cannot be re-used in any way are sent for energy recovery.



Performance/outcomes

- Number of collections/deliveries: Use of national haulier, with collections in own vehicle
- Non-clothing textiles collected in 2012: 213 tonnes
- Re-use rate: 80%
- Recovery rate: 20%

Figure 1 Re-used carpet tiles from Greenstream Flooring in a National Trust sitting room.



Innovation/Good practice

Greenstream Flooring's hand sorting and grading system ensures that as many tiles are re-used as possible. Greenstream undertake some cleaning of tiles, such as spot cleaning or steam cleaning on site to maximise re-use.

Description of costs and revenues

A summary of the main annual costs and revenues (detail given where provided).

Costs:

- Collection vehicles: One 3.5 tonne van, estimated cost of vehicle £15,000. The majority of tiles are collected using a national haulier in 18 tonne trucks and articulated lorries (operating within approximately 200 mile radius of site)
- Buildings: One warehouse (5000ft²), divided into two units.
- Equipment: One electric forklift
- Dedicated staff: Five FTE, one PTE
- Collection cost: Around £50-£150 per tonne using 3.5 tonne van (collections under 2.5 tonnes), £70-100 per tonne using contractor (collections over 2.5 tonnes), both depending on quantity and location.

Revenues:

- Self-generated income from sale of items (product grade tile which is typically resold for £2-4 per m² dependent on grade).
- Gate fee charged by Greenstream which varies between £0-40 per tonne (dependent on product quality)
- Grant for one member of staff (~£75,000 over three years)

Figure 2 Patch work flooring at the New Horizon Charity Shop in Tonyrefail, Wales



Conclusions/key learning points

This is an example of a viable social enterprise which offers permanent employment and a route back to employment for others in an economically deprived area of the country. Operational costs are kept low, whilst local housing associations and other premises offer a clear market for re-used tiles. Sorting, cleaning and grading of the tiles enables them to be used in a range of applications and ensure the maximum proportion are re-used.

As co-founder of Greenstream Ellen Petts stated: "Carpet tiles are perfect for re-use: they are hard wearing, portable and modular. We are showcasing that there is real value in re-use, with a financially sustainable business model that is creating real community benefits from otherwise burnt or land filled material." Greenstream is currently opening additional new premises in London via a partnership with the Ministry of Justice. As much of the carpet tile material originates and is re-used in the London area, Greenstream hopes to reduce its transport distances and costs.

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