



Typical items we accept:

- Windows
- Glass doors and bottles
- Architectural, flat and structural glass
- Jars

Each year in the UK approximately 250,000 tonnes of glass waste is generated by the demolition and refurbishment of buildings. Glass waste is generated by the removal of windows but also increasingly by architectural or structural applications such as wall surfacing, glass building blocks, reinforced plate glass and pigmented structural glass.

Glass can be recycled back into containers, glass wool or recycled aggregates for use in construction as a sustainable alternative, saving CO₂. According to WRAP, the UK currently recycles around 50% of container glass per year, however there is still a lot of work to do as the commercial sector (predominantly bars, restaurants and pubs) currently throws away 600,000 tonnes of glass every year, with much of it ending up in landfill. The energy saved from recycling one bottle will power a television for 20 minutes.

Glass can be recycled as many times as required without any deterioration in quality. What makes glass recycling even more important is that it never decomposes. If disposed of in landfills and incinerators, it will contribute substantially to pollution.

OUR GLASS RECYCLING SOLUTION

At our Material Recycling Facility glass is sorted and separated from other recyclables to be processed by a crusher to reduce in size, the reduced materials are also sent to the washing screen.

Our Trio twin washer/wet trash screen cleans all the material and removes small light items and rinses using a Trio triple deck washing screen to produce a reusable material. For the small items a low pressure Sandmaster cyclone produces recycled sand.

Glass material is then either integrated into our aggregates recycling facility where it is crushed, screened and washed to produce graded aggregate materials all manufactured in line with WRAP's quality protocol and Highway Works Specification or re-bulked for transportation to specialised recycling.

After the sorting stage, the next stage in the glass recycle process involves crushing and grinding the waste glass into tiny pieces. The finely crushed glass pieces are referred to as cullet. The next stage involves the removal of contaminants from the glass cullet. The glass cullet is passed through a magnetic field, where metal contaminants like metal bottle caps are removed from the glass. Other contaminants like paper and plastic are picked up manually or through an automated process. Ceramic contaminants are removed from the glass cullet via a process known as fine sizing. The finely ground glass cullet is passed through various screens, leaving behind ceramic residues. If, however, ceramic

contaminants do pass through the various screens together with the glass cullet, the quality of the recycled glass will be affected as ceramic contaminants in glass can lead to structural defects. The cullet is then melted and can then be used in manufacturing recycled glass products like new glass containers, bottles etc.

The final stage of the process is to crush the material to size before it is sampled and tested to ensure that it meets the required specifications. This material is then supplied to bottle and jar manufacturers who make new bottles and jars from the finished, high quality cullet. This type of recycling is known as "closed loop" system, where waste material is turned back into its original form. In the case of glass bottles and jars this loop can be repeated over and over again.

Our digital data capture systems enable us to provide complete chain-of-custody reporting from collection to final destination. Electronic waste transfer consignment notes are issued for all materials we manage in compliance with your Duty of Care obligations.

The McGrath Group is accredited to various trade bodies and accreditations including PAS 402:2013. We also operate an integrated management system which is certified against international standards OHSAS 18001 (Health & Safety), ISO 9001 (Quality) and ISO 14001 (Environmental) and ensures our products and services are supplied safely, consistently and sustainably.



KEY FACTS

EWC Codes:

15 01 07
17 02 02
20 01 02

Percentage we recycle:
100%

Relevant regulations:
Waste Framework Directive (2008/98/EC)
Landfill Directive (1999/31/EC)

Average CO₂e saving per tonne recycled:
-0.26 tonnes (Defra)

