

Assets decarbonisation through reuse of key materials

14 May 2024

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Large Manufacturer's or Supplier's perspective: Company policy and objectives for re-use and recycling



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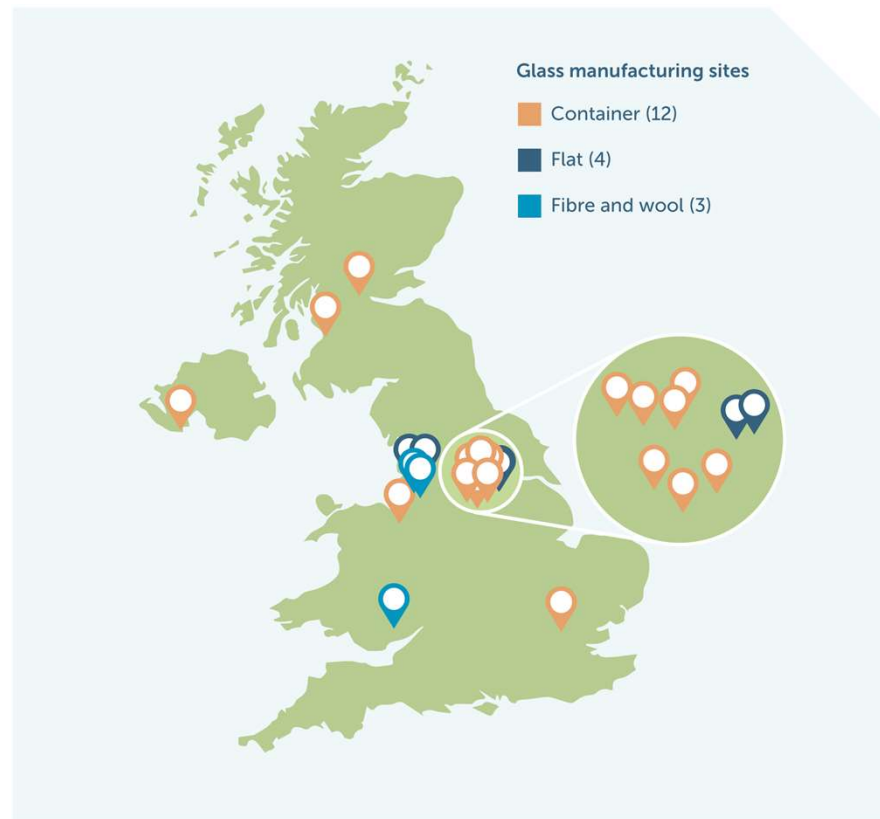
British Glass



British Glass

Flat Glass: Recycle it Right

Location of UK Glass sites



Key Statistics for the UK Glass sector

The key statistics for 2019 are:

People and Jobs



6,000 direct jobs and around 150,000 indirect jobs in the glass industry

Production tonnages



3.5 million tonnes of glass melted per year (2018)

Whole site energy use



Natural Gas: 6 TWh
Electricity use: 1 TWh

Recycling



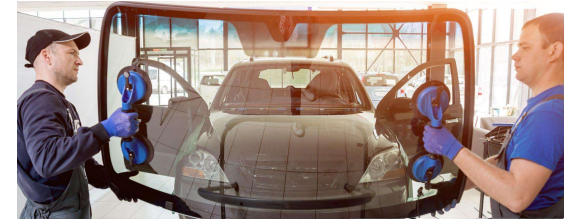
71% of container glass was recycled in 2019

Direct CO₂ emissions

- Around 75-80% of the direct CO₂ emissions are a result of natural gas combustion
- 20-25% of direct CO₂ emissions are down to the carbonate raw materials

Flat glass overview

- Used in buildings, vehicles and other applications such as solar panels
- There are three UK manufactures of flat glass between them producing around 750,000 tonnes of glass every year
- We estimate that less than 10% of flat glass is recycled in the UK
- Energy efficient specification glazing can reduce energy consumption and make a significant contribution to the net zero target.
- Like glass bottles, flat glass can be recycled and remelted into new glass



Why recycle flat glass?

It's endlessly recyclable: Glass is 100% recyclable and can be endlessly melted and re-melted without ever reducing its quality

Reduce demand for raw materials – more recycled content means reducing the need to extract raw materials

It uses less energy and emissions when it's recycled: for every tonne of glass that is re-melted, we save 300kg of CO₂ emissions

If all the flat glass currently going to landfill was diverted to being recycled, the **potential carbon saving is up to 150,000 tonnes**

What are the current barriers to recycling flat glass in the UK?



Quality – The majority of end of life glazing in buildings could be dismantled and recycled, however, contamination is the main barrier to recycling flat glass.



Economics – The low material value of glass and the high cost of labour and transport to recycle flat glass means the economics often do not stack up



Education – There remains a lack of public awareness around the value of closed loop recycling compared to low value recycling such as glass being 'recycled' as aggregates.



Lack of policy to recycle and source separate flat glass

Landfill tax for glass

- **Qualifying materials (lower rate):**
 - Rocks and soils
 - Ceramic or concrete materials (including glass)
 - Minerals
 - Furnace slags
 - Ash
 - Low activity inorganic compounds
 - Calcium Sulphate
 - Calcium hydroxide and brine



Material sent to landfill	Rates from 1 April 2023	Rates from 1 April 2024
Standard rated	£102.10 tonne	£103.70 tonne
Lower rated	£3.25 tonne	£3.30 tonne

What is the government considering

- **UK Government consulted on landfill tax reforms**
 - It is likely that rate for glass will be increased or glass removed from lower rate to promote more circular use of glass

- **DEFRA consulted on waste prevention programme**
 - Looking at 5 construction wastes to be included in an EPR scheme by 2025

Policy solutions for flat glass



Ban or increase the landfill tax on glass waste



Source separate glass waste from construction



Reduce the amount of glass going to aggregates



Resources

Recycling

- [Flat glass recycling information](#)
- [GGF Recycling Schemes](#)

General policy positions

- [British Glass policy position](#)
- [British Glass net zero strategy](#)

Creating a circular economy for flat glass



British Glass



Any questions?

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