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## lass Recycling

Recycling is an important part of the Waste Hierarchy – ‘Reduce, Re-use, Recycle’ which depicts the best ways of managing waste from the most to the least desirable. It is a central theme of the European Union waste policy. While the first two steps are considered more important it is the practice of recycling that is the facility manager’s final defence against waste going to landfill which has become very costly through taxation and socially unacceptable because of the impact on the environment.

Recycling turns materials that would otherwise become waste into valuable resources and generates a host of environmental, financial and social benefits. Glass is an ideal material for recycling and where it is used for new glass container manufacture it is virtually infinitely recyclable. Glass recycling uses less energy than manufacturing new glass from sand, lime and soda. Every metric ton (1,000 kg) of waste glass recycled into new items saves 315 kilograms (690 lb) of carbon dioxide from being released into the atmosphere during the creation of new glass.

Glass waste has to be separated by chemical composition, and then, depending on the end use and local processing capabilities, might also have to be separated into different colours. Most recyclers collect different colours of glass separately since glass retains its colour after recycling. The most common types used for collection containers are colourless glass, green glass, and brown/amber glass.

In the United Kingdom, the waste recycling industry cannot consume all of the recycled container glass that will become available over the coming years, mainly due to the colour imbalance between that which is manufactured and that which is consumed. The UK imports much more green glass in the form of wine bottles than it uses, leading to a surplus amount for recycling.

The resulting surplus of green glass from imported bottles may be exported to producing countries, or used locally in the growing diversity of secondary end uses for recycled glass. Recent research findings have shown that concrete made with recycled glass aggregates has better long term strength and better thermal insulation.

Other secondary markets for recycled glass include its use in insulation products, in ceramic sanitary ware production, as a flux agent in brick manufacture, in Astroturf material, in golf bunker sand, as water filtration media, as an abrasive and as an aggregate.

*The British Glass Manufacturers' Confederation represents the UK's glass industry and is active in the promotion of glass recycling and the infrastructure to facilitate that activity. [www.britglass.org.uk](http://www.britglass.org.uk)*