2b Recycling-friendly design for packaging made of glass: recycling-friendly glass is transparent and removing the label is easy

In glass recycling, so-called 'hollow glass' is processed: problematic non-glass components are sorted out in the recycling process with cutting-edge technology. The goal is to produce ready-to-melt shards of high quality that can be turned into new hollow glass at the glass factory.

A key feature of glass as a packaging material is its transparency. The contents are visible. That property has to be maintained in recycling. Non-transparent (opaque) glass shards are recognised as contaminants by the optical sorting system, which operates based on light, and these shards are separated from the transparent glass.

A further basic rule in glass recycling is that all 'non-glass components' of glass packaging should be as easy to remove as possible so that the material streams are free from any residues to the greatest extent possible after sorting. For glass recycling, it therefore is better to avoid labels where the full surface needs to be glued wherever possible. Glass that cannot be separated from labels is lost in the recycling process because, even given the most cutting-edge process, every sorting system has certain technical limits.

Example 1

The picture shows transparent hollow glass in white, green and brown that is highly recyclable.

If labels affixed with glue cannot be removed, the glass there is not transparent and is sorted out. It is lost for glass recycling purposes.

Example 2

Here we see two painted hollow glass bottles. The paint means they are no longer transparent. In the sorting process, these glass bottles are sorted out and lost completely for glass recycling purposes.