

Glass remains glass



**Glass recycling at Vetropack.** *Glass is durable, impermeable, hygienic, malleable, aesthetically pleasing and natural. This is why, as a packaging material, it remains unbeatable – for food and drinks. One important property of glass is that it can be recycled. Glass represents a 100% closed-loop cycle of materials. Recycling enables Vetropack to cut the amount of energy it needs to produce glass by over 20%.*

## Recycling is ecological and economical

Nowadays, customers prefer environmentally friendly products. In this regard, glass is clearly superior to other packaging materials, because it is ideally suited to reuse and recycling. The Vetropack Group is a pioneer in glass recycling.

Glass production requires high temperatures of about 1,600 degrees Celsius and so needs an enormous amount of energy. With rising energy costs and an obligation on high-energy industries to contribute towards achieving climate change targets, glass recycling is becoming more and more important.

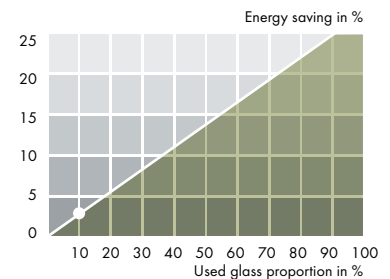
## Recycling preserves resources

Within just a few decades, the recycling of used glass has massively improved the environmental impact of glass production: thanks to glass recycling and related technological innovations, the container glass industry has succeeded in cutting its waste gas emissions and other waste products by an impressive 75% in the last 25 years.

The reason for this figure is the simple fact that it takes far less energy to melt down used glass than primary raw materials – so recycling reduces energy consumption considerably.

### Saving energy in the furnaces by recycling used glass.

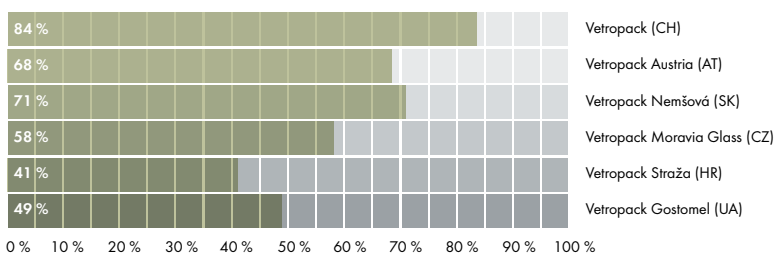
There is a linear correlation between the proportion of used glass and the energy that is saved: every 10% of used glass saves 3% of the energy and 7% of the CO<sub>2</sub> emissions.



## A closed-loop cycle

Glass can be melted down and reused any number of times with no loss of quality. That is why recycling is so important for Vetropack, across all its sites. Throughout the group, used glass is now by far the main raw material for glass production.

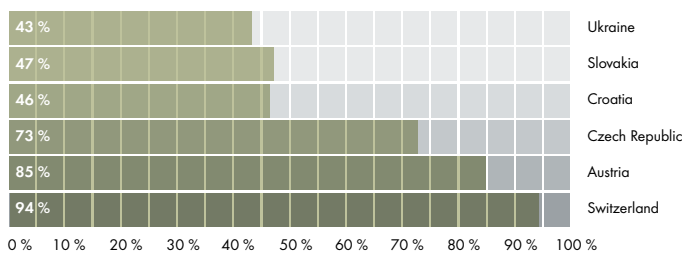
**Proportion of used glass in glass production by national company.** The average proportion of used glass in the production of all Vetropack national companies is more than 60% – and rising.



*Glass represents a 100% closed-loop cycle of materials.*

## A pioneer in glass recycling

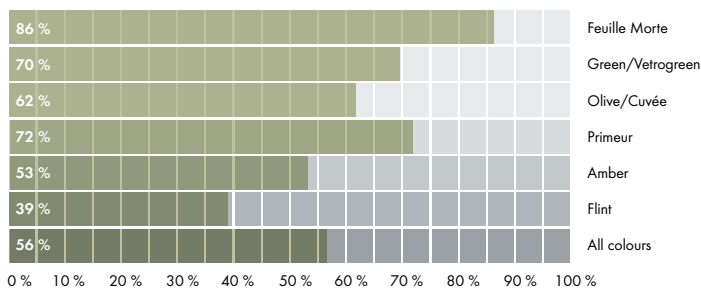
Vetropack began recycling used glass in Switzerland as long ago as the 1970s. In the six countries where the Vetropack Group operates glass factories, the company collects used glass, either independently or in cooperation with special-purpose organisations, in order to reuse it. The recycling rate has increased very satisfactorily since the early days of reusing glass.



**Comparison of used glass collection rates.** The collection rates in the countries where Vetropack operates vary greatly. The recycling system is being steadily built up in the Eastern European countries.

## Colour is critical

Reusing used glass preserves resources, saves energy and cuts CO<sub>2</sub> emissions. What is important is how the collected glass is processed, because, in order to make flint glass, only cullets of flint glass can be used. The proportion of used glass therefore varies depending on the colour of the glass.



**Proportion of used glass in glass production by colour.** At Vetropack, the proportion of used glass varies from 39% for flint glass to 86% for Feuille-Morte.

*Glass can be melted down and reused any number of times with no loss of quality.*

## The benefits of glass recycling at a glance

- Glass is a high-quality packaging material which can be recycled in a sustainable manner.
- Consumers benefit from a universal system for disposing of used glass containers.
- Glass recycling reduces the amount of household waste.
- The reduced consumption of primary raw materials and energy as well as reductions in airborne emissions and solid waste help protect the environment.

## Consumers are aware of the benefits of glass

More and more consumers are making health, quality and eco-friendliness higher priorities than convenience – and they believe that glass is the safest form of packaging. According to a study, 88% of all Europeans put their confidence in glass in the interests of their health. They are sure that glass preserves the flavour and nutritional value of food better than any other packaging material.

*(Source: Study by the international market research company TNS on behalf of the European Container Glass Federation FEVE, carried out in August and September 2010, based on 9,500 consumers from 19 countries)*

Every 10% share of used  
glass lowers energy  
consumption by 3% and CO<sub>2</sub>  
emissions by 7%.

## Vetropack: top quality products preserving value for you

The Vetropack Group is one of Europe's leading manufacturers of glass for packaging. It operates seven plants in Switzerland, Austria, the Czech Republic, Croatia, Slovakia and Ukraine, and employs 3,000 staff. The glass factories are certified under ISO 9001 and have a total of 16 melting furnaces with a daily production capacity of 4,000 tonnes of glass for packaging.

**Glass meets the highest specifications.** The Vetropack Group supplies its customers in the food and drink industry with glass containers that meet the highest specifications. They provide complete protection for the product and also embody product image and marketing strategies. Vetropack's services range from packaging design, production and logistics through to technical consultancy.

**Leading the way in environmental protection.** As long ago as the 1970s, Vetropack introduced a system in Switzerland for recycling used glass, making the group a pioneer in glass recycling. With its commitment to recycling and continuous investment in the latest production facilities, in recent decades Vetropack has succeeded in substantially reducing its consumption of raw materials and energy and its emissions of harmful substances.

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