

# Fact bite #32



## Glass food contact materials



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**Glass consists of a network of silicon dioxide and metal oxides. Due to this molecular structure, glass has very high barrier properties, where even small molecules like oxygen cannot pass through. That's why glass is inert and does not interact with the food it is in contact with.**

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**Glass containers typically require closures made from different materials (e.g., plastic, metal, cork), which may not be inert and lead to chemical migration.**

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**Glass can be infinitely recycled without any loss of quality. This process, however, is energy-intensive, requiring consistently high temperatures. Recycling saves up to 25% of the needed energy compared to producing new virgin glass.**

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**Due to its relatively high weight compared to other food contact materials, transporting glass is more energy-intensive.**

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**Glass is highly durable and chemically stable, making it well-suited for reuse. Reusing glass packaging is significantly more energy-efficient than recycling single-use glass packaging.**

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