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Ecodesign in food packaging

UNIT 7: Glass Containers

Quiz and Assignment

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Quiz 2

Assignment 3



Quiz

- 1) Which type of glass is commonly used for food packaging:
 - A. Lead glass (crystal) with potassium and lead composition.
 - B. Colorful glass, which is obtained by adding some metal oxides (copper, iron or chromium) to the melt.
 - C. Silicoscale sodium glass.

- 2) What is the percentage by which glass can be recycled:
 - A. 100%
 - B. 20%
 - C. 80%

- 3) Which of the following properties make this material to be used for food packaging:
 - A. The bottle is rigid, water-insoluble and resistant to the action of acids and bases; chemical inert matter in contact with food; impermeable to gases, liquids, vapors, flavors, microorganisms.
 - B. Transparency, light can contribute to quality change; stubborn, resists shocks, vibrations, strokes.
 - C. fragility; has a relatively high density, 2500 kg / mc; requires special handling, transport, storage conditions.

- 4) The technological process of glass containers consists of the following operations:
 - A. Double blow molding (blowing) or pressing and blowing (jars), annealing at over 800 0C, control, pallet packing.
 - B. Use of 20-90% cleaned glass fragments (at performance facilities) in other sand, soda (sodium or potassium carbonate), calcium ores, melting in the oven at over 1000 ° C, conditioning, droplet formation, formation by double blowing (bottles) or pressing and blowing (jars), annealing at over 800 0C, control, pallet packing.
 - C. Use of 20-90% cleaned glass fragments (at performance facilities) in other sand, soda (sodium or potassium carbonate), calcium ores, melting in the oven at over 1000 ° C, conditioning, droplet formation

- 5) To reduce the friction between glass containers during transport and to reduce the risk of their breaking, an outer covering is applied which consists of:
 - A. Single layer of oleic acid or polyethylene wax.



- B. In a single layer of lead oxide after annealing.
 - C. In a first layer consisting of a tin oxide applied after annealing. The second named layer is applied after molding and consists of a layer of oleic acid or polyethylene wax.
- 6) The sealing of the jars is ensured by:
- A. The jar lids typically have a seal which is tightened and secured to the sealing surface by the construction of the jar-lid pair.
 - B. Sealing is provided by tightening on a conical thread.
 - C. Sealing is ensured by tightening the cap on the inclined plane.
- 7) The most used scenario for the end of life of glass containers is:
- A. The use of shards in glass production in a double-flow system in which the glass is collected separately.
 - B. Reuse of glass packaging
 - C. The use of shards in the production of glass in a single-flow collection system.

Assignment

Develop at least one of the following tasks:

1. Describe briefly the properties and technological process of the glass containers. (see also video unit 7 bottle)
2. Describe briefly the possibilities of recovery, recycling and life cycle scenarios of glass packaging (see also video unit 7 glass)

