

Quality tests of glass containers for foods to ensure their utility of efficiency

Prof. Ezzeldeen Abdelazez

Professor at Faculty of Applied Arts, Helwan University

www.ezz.aziz@gmail.com

Prof. Ibrahim Mohamed Ibrahim Youssef

Professor at Faculty of Applied Arts, Helwan University

www.imyoussof@hotmail.com

Dr. Mohamed abd elmoteleb Etman

PhD in the College of Engineering

www.m.etman@gmail.com

Researcher. Mariam Ahmed ElHelali

glass department, applied arts, Helwan University

www.eos.mariam@gmail.com

Abstract

Glass containers are used widely for packaging food, the most important functions are containing, protecting and preserving content material, and also advertising and sale it, the role of applying quality test standards is shown as a clear measurement method to ensure the glass container utility efficiency as a food packaging for both of contain and consumer, Quality tests give us quantitative results about package properties and clarify its quality functional performance, there is a great bond between achieving quality and standards by conducting tests. This research clarify the types of food glass containers and the glass containers functions towards the content and the role of applying quality tests and the most important applied tests on most kind of glass containers which ensure its utility efficiency throughout its life cycle, the tests which explained were the vertical load test which determined the amount of weight that container can withstand vertically without damage, the internal pressure resistance test and its impotency for narrow neck bottle for beverages contained carbon dioxide and for jars which filling high temperatures degrees, thermal shock test which important for containers that's use as a packaging in high temperatures, the light transmission test for coloured glass containers which used for packaging contends that affected by light, the chemical resistance test of glass containers by measuring the amount of melted glass granules in water at 98⁰C, and finally polariscopic test for glass containers which determined the quality of glass annealing.

Keywords:

Glass containers – quality test – food glass packaging – Egyptian standards.