

# هيئة التقييس لدول مجلس التعاون دول الخليج العربية GCC STANDARDIZATION ORGANIZATION (GSO)

مشروع لائحة نهائي  
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إعداد اللجنة الرئيسية الخليجية رقم TC05

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عبوات المواد الغذائية الجزء الأول: اشتراطات عامة  
Food Packages - Part 1: General Requirements

I.C.S: 67.250

This document is a draft GSO Standard circulated for comments. It is, therefore, subject to alteration and modification and may not be referred to as a GSO Standard until approved by GSO.

هذه الوثيقة مشروع لمواصفة قياسية خليجية تم توزيعها لإبداء الرأي والملاحظات بشأنها، لذلك فإنها عرضة للتغيير والتبديل، ولا يجوز الرجوع إليها كمواصفة قياسية خليجية إلا بعد اعتمادها من الهيئة.

## Foreword

Standardization Organization for (GCC) is a regional Organization which consists of National Standard Bodies of GCC member States. One of GCC main function is to issue Gulf Standards through specialized technical committees (TCs).

GSO through the technical program of committee TC No. (5) 'Technical Gulf committee for food and agricultural products standards' has prepared the standard of " **Food Packages - Part 1:General Requirements**" .

The draft standard has been prepared by Saudi Arabia, after review the Arabic, foreigner and International standards and related complied references.

This standard has been approved as Gulf technical regulation by GSO Board of Directors in its meeting No.... / ..... held on ..... / ..... H,     /     /     G.

## **Food packages – Part 1: General requirements**

### **1. SCOPE:**

This standard is concerned with the general requirements for all packages of food materials, including metal, glass, plastic, paper, carton, multilayered textile, and wood packages, in addition to other materials for packaging foodstuffs.

### **2. COMPLEMENTARY STANDARDS:**

- 2.1 GSO 9 "Labeling of prepackages food stuffs".
- 2.2 GSO 124 " General requirements for fresh fruits and vegetables boxes "
- 2.3 GSO 2515 " Food packages made of aluminum foil "
- 2.4 GSO 1863 "Food packages – Part 2: Plastic package – General requirements".
- 2.5 GSO 1791 "Three piece steel round cans used for canning food stuffs".
- 2.6 GSO 1794 "The two piece steel round cans used for canning food stuffs".

### **3 DEFINITIONS:**

- 3.1 Packages of food materials: Containers made from packaging materials suitable for foods and used for their containment, protection, and ease of use, such as metal cans, glass or plastic bottles, tins, paper, plastic and textile bags, wood and plastic boxes, paperboard containers, or any other types of containers including primary and secondary packages.
- 3.2 Primary package: Package that achieves the primary containment function where food is in direct contact with its interior surfaces.
- 3.3 Secondary package: External package which contains inside it the primary package for purpose of transportation, storage, distribution, and marketing.
- 3.4 Food grade material: A material allowed to be used in foods on condition that it does not cause any hazards or health problems.
- 3.5 Active and intelligent packaging materials: A contact bags containing chemicals that exceed the validity of food and maintain it and improve

quality by absorbing oxygen and moisture and reducing microbial contamination. There are types of active and intelligent packaging materials, including:

- 3.5.1 Oxygen Propellant: Active bags of aluminum or plastic stuffed with a powder made up of chemicals that pull or deplete the remaining oxygen in the environment surrounding food or from the food itself.
- 3.5.2 Moisture Absorbers: substances are used to control the moisture content of food and this works to control the water activity of the food to reduce the microbial growth.

#### **4 REQUIREMENTS:**

Without prejudice to the packaging requirements stated in the GSO standards on food products, the following general requirements for all kinds of food packaging materials shall be met:

- 4.1 All materials used in fabrication, forming, or treatment of packages shall be of the food grade materials and in compliance with the relevant GSO standards.
- 4.2 They shall be clean, and in such a condition that does not allow any contamination of the packaged material.
- 4.3 They shall maintain the properties of the packaged material, and protect it from gaining undesirable odours, flavours and tastes.
- 4.4 They shall offer protection to the food product against contamination with micro-organisms, insects, rodents and dirt in the case of products where such protection is required.
- 4.5 They shall be impermeable to moisture in the case of food products wherever this is required.
- 4.6 They shall be impermeable to light and oxygen in the case of products wherever this is required.
- 4.7 They shall not affect the contents as a result of migration of some of their constituents that may react or be mixed with the food stuff.
- 4.8 They shall offer necessary protection against environmental conditions and mechanical hazards such as impacts, vibrations, static stresses, and they shall keep an intact appearance during handling.
- 4.9 The following shall be considered in the design of packages:

- 4.9.1 Enough area shall be reserved on the outer surface to allow for writing of label information according to the GSO standard mentioned in 2.1.
- 4.9.2 Ease of transportation, storage, and distribution operations.
- 4.9.3 Ease of opening and reclosing shall be met in their design.
- 4.9.4 To be designed in such a way that is not misleading to consumer.
- 4.9.5 Not have a form that implied falsehood, erroneous impression, deception or any form that may lead to the wrong impression for the consumer.
- 4.10 The package size shall be proportional to the size or quantity of the packaged contained material.
- 4.11 Packages shall be used only once, unless they are originally fabricated to stand washing, sterilization, and refilling operations, such as multi usage glass bottles.
- 4.12 The package shall not present any hazards to the consumer when used.
- 4.13 In case boxes are used for packaging fresh fruits and vegetables, they shall comply with the requirements stated in the GSO standard mentioned in 2.2.
- 4.14 In case of using food packages made of aluminum foil, they shall comply with the GSO standard mentioned in 2.3.
- 4.15 In case of using food packages made of plastic, they shall comply with the GSO standard mentioned in 2.4.
- 4.16 In case of using three piece steel round cans used for canning food stuffs, they shall comply with the GSO standard mentioned in 2.5.
- 4.17 In case of using two piece steel round cans used for canning food stuffs, they shall comply with the GSO standard mentioned in 2.6.
- 4.18 The following shall be met during transportation, storage and handling of packages:
  - 4.18.1 They shall remain tightly closed to avoid exposure to any contamination till they are used.
  - 4.18.2 They shall be transported in suitable means of transportation so as to protect them from mechanical damage and contamination.
  - 4.18.3 They shall be stored in suitable places to protect them from mechanical damage and contamination.
- 4.19 Ease to dispose of or reuse of such packages shall be considered.

- 4.20 If plastic or other non-food items are used in a food product package For example: gifts, pictures, active and intelligent packaging materials, etc the following item shall be considered:
- 4.20.1 The phrase "contains gift or contains material to absorb moisture or oxygen " shall be written on the label of the product package according to the purpose Which it placed for it in the packaging of the product in a clear line that is easy to read and difficult to remove.
  - 4.20.2 The phrase “do not eat” must be written clearly on the gift or other materials and in both Arabic and English languages.
  - 4.20.3 The gift or other non-food items should not be rupture by possible exposure or by hand.
  - 4.20.4 The size of the gift or other non-food items Should be suitable and clear within the product to avoid eaten by mistake, and determine the number on packing of product.
  - 4.20.5 The inks and materials used in the manufacture of the gift ...etc shall be a food grade.
  - 4.20.6 Using oxygen absorbent capsules in acidic foods and liquid food product is forbidden.

## المصطلحات الفنية

Reclosing Containment	إعادة الغلق
Vibrations	احتواء
Static Stresses	إجهادات إستاتيكية
Coatings	بطانات
Handling	تداول
Marketing	تسويق
Forming	تشكيل
Packaging	تعبئة وتغليف
Food grade	درجة غذائية
Laminates Packages	رقائق مصفحة ( متعددة الطبقات )
Packages	عبوات
Primary package	عبوة أساسية
Secondary package	عبوة ثانوية
Migration	هجرة
Moisture impermeable	غير منفذة للرطوبة
Light impermeable	غير منفذة للضوء
Oxygen impermeable	غير منفذة للأكسجين
Active and intelligent packaging	العبوات النشطة والذكية
rupture	تمزق

**References:**

- COMMISSION REGULATION (EC) No 450/2009 on active and intelligent materials and articles intended to come into contact with food, Official Journal of the European Union , L 135/3 : L 135/11, May, 2009.