

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



**GSO 1320/2014 (E)**

**الحلوى الطرية**  
**Soft candy**

**ICS : 67.180**

## **Soft candy**

**Date of GSO Board of Directors' Approval** : 12/01/1436h(05/11/2014)  
**Issuing Status** : Technical regulation

**Foreword**

GCC Standardization Organization (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulations through specialized technical committees (TCs).

GSO through the technical program of committee TC No (5) "Technical committee for standards of food and agriculture products" has updated the GSO Technical regulation No. : GSO 1320/2009 "Soft candy" The Draft Technical regulation has been prepared by Sultanate of Oman .

This Technical regulation has been approved by GSO Board of Directors in its meeting No.(20), held on 12/01/1436h(05/11/2014), The approved standard will replace and supersede the standard No. GSO 1320/2009 .

## SOFT CANDY

### 1- SCOPE AND FIELD OF APPLICATION

This standard is concerned with the following types of soft candy: toffee, Turkish delight, nougats, fondant, marshmallow, fudge, fruit pastes which has not been issued by an independent Specification (excluding chewing gum, chocolate types and western and orient sweets).

### 2- COMPLEMENTARY REFERENCES

- 2.1 GSO 9 (Labelling of Prepackaged Foods).
- 2.2 GSO 16 (Physical and Chemical Methods of Testing for Edible Oils and Fats).
- 2.3 GSO 20 (Methods of Test for the Determination of Contaminating Metallic Elements in Foodstuffs).
- 2.4 GSO 21 (Hygienic Regulations for Food Plants and Their Personnel).
- 2.5 GSO 23 (Methods of Test for Colouring Matter Used in Foodstuffs).
- 2.6 GSO 150 ““Expiration Periods of Food Products - Part 1”
- 2.7 GSO 134 (Methods of Test for Sugar - Physical and Chemical Methods).
- 2.8 GSO ISO 2448 : 2007 (Fruit and Vegetable Products - Determination of Ethanol
- 2.9 GSO 262 (Methods of Test for Hard Candy).
- 2.10 GSO 263 (Hard Candy).
- 2.11 GSO ISO 6579:2007 “Microbiology of food and animal feeding stuffs – Horizontal method for the detection of Salmonella spp”.
- 2.12 GSO ISO 4832:2010 “Microbiology of food and animal feeding stuffs – horizontal method for the enumeration of coliforms – colony count technique”.
- 2.13 GSO 841 “Maximum limits of mycotoxins permitted in foods and animal feeds-aflatoxins.
- 2.14 GSO 842/1997 “Microbiology - General Guide for the Enumeration of Yeasts and Moulds - Colony Count Technique at 25°C”.
- 2.15 GSO 1306 “Methods of Microbiology Testing of Plant Baby Foods”.
- 2.16 GSO Standard ON “Methods of Test for Edible Starch”.
- 2.17 GSO Standard ON “Testing for Pork Fat in Food Products”.
- 2.18 CAC 192 witch adopted by GCC “ General standards for food additives”.

### 3- DEFINITIONS

#### 3.1 Soft candy

The product of cooked sucrose and glucose with optional materials (item 4.1.13) according to types and good manufacturing practices.

## 3.2 Toffee

The product of cooked sucrose and glucose with known ratios of milk or milk products or some fats with optional materials (item 4.1.13) according to types and good manufacturing practices, then cooled and shaped.

## 3.3 Caramel

Chewing Candy with Lin and Rubber strength, resulting from the cooking of sucrose and glucose in certain proportions with dietary fat and optional materials (item 4.1.13) according to types and good manufacturing practices

## 3.4 Marshmallow

The product of cooked sucrose and glucose under defined temperature with aerated agent such as albumin or modified proteins or gelatin with optional materials (item 4.1.13) according to types and good manufacturing practices, flavoring and colouring and taste materials according to good manufacturing practices. Candy shaped and cut to different forms and offered by sugar or starch or both and final product may cover by chocolate.

## 3.5 Fondant

The product of cooked mixture of sucrose and glucose with or without invert sugar and water, flavouring and colouring materials, some nuts, few of albumin or gelatin or glycerine, added under defined temperature in open pans to allow it to mix with air, and shaped into different forms. Some is filled with fruit pastes or marmalade.

## 3.6 Fudge

It is as fondant (item 3.5) but contains milk fat or some dietary fats.

## 3.7 Turkish delight

The product of cooked sucrose and glucose with starch and some acids (citric acid or tartaric acid). Flavouring and colouring materials, some fillings such as nuts and dried fruits are added according to good manufacture practices.

## 3.8 Fruit pastes

The product of cooked fruit cores with the following: sucrose, glucose, pectin, citric acid, flavouring materials according to good manufacture practices.

**4- REQUIREMENTS**

## 4.1 General requirements

The following requirements shall be met in soft candy:

4.1.16 All materials used shall comply with the relevant GSO standards for each material.

4.1.16 The product shall be prepared according to hygienic conditions stated in the GSO standard mention in item (2.4).

4.1.16 It shall be clean and free from foreign matter.

- 4.1.16 It shall have acceptable taste and distinctive type.
- 4.1.16 It shall be free from pork products and its derivatives.
- 4.1.16 It shall be free from ethanol
- 4.1.16 It shall be free from rancidity and undesirable smell..
- 4.1.16 It shall be free from insects and their fragments.
- 4.1.16 It shall have a suitable colour, proper texture, uniform shape without being melted or attached with itself or with outer wrap.
- 4.1.16 In case of stuffed types ,the percentage of stuffed shall be in limit 20%
- 4.1.16 In case of cover the product with chocolate , the percentage of chocolate shall be in limit 30%.
- 4.1.16 Total Ash shall not be exceed 2%.
- 4.1.16 The following Optional materials are permitted to be add:
- Organic acids or their derivatives (cream of tartar - citric acid - tartaric acid - malic acid fumaric acid - lactic acid or any suitable acid substance);
  - Vitamins.
  - Chocolates.
  - Vanilla.
  - Aromatic water.
  - Honey .
  - Nuts.
  - Starch and talcum powder.

#### **4.1.16 Health properties**

##### **4.1.14.1 Food Additives**

Its only allowed to used food additives meniones in international codex standard which mentioned in item ( 2.18 ) on food category 05.0 and 05.2 with the limits, and additives mentioned in table (3) according to good manufacturing practices.

##### **4.1.14.2 Contaminating metallic elements content shall not exceed the following:**

Arsenic : 0.5 ppm

Lead : 1.0 ppm Copper : 2.5 ppm Zinc : 2.5 ppm

##### **4.1.14.3 Aflatoxin shall not exceed the limits mentioned in GSO standards mentioned in item (2.13)**

#### **4.1.14.4 Microbiological properties**

##### **4.1.14.4.1 Microbiological limits for soft candy shall be according to the following table:**

Microbes	Limit per ml or gram			
	n	c	m	M
Yeast and moulds	5	2	100	1000
Bacteria total count	5	2	1000	10000
Staphylococcus aureus	5	2	100	1000
Salmonella	5	0	0	0
Escherichia coli	5	0	0	0

n = Number of sample units to be examined.

m = Value or level of microbiological criterion to be met in the food product.

c = The maximum number of sample units allowed to have a microbiological criterion value greater than m and below the value of M.

M = The maximum criterion value that should not be achieved or exceeded in any of n units.

4.1.14.4.2 Criteria of Technical Conformity: Sample are considered unacceptable in the following cases:

- When the microbiological criterion value exceeds M in one or more sample units n.
- If the number of marginally acceptable samples is higher than c value set in the sampling plan.

4.1.14.4.3 Test shall be carried out on one sample and if the microbiological criterion showed 80% from the maximum allowable level (M) the test shall be carried out again according to the number of the samples stated in the standard.

4.1.15 Candy manufactured or mainly directed to children must comply with the following:

4.1.15.1 Candy shall not be prepared in shapes that help to the wrong behaviour or dangerous practices such as sharp, edged, frightening and disgusting machinery.

4.1.15.2 The consumption manner shall be easy and does not lead to an increase the probability of contamination.

4.1.16 Properties indicative of quality:

Type	Water Minimum limit	Protein Minimum limit	Fat Minimum limit	Carbohydrate Minimum limit	Total sugars Minimum limit
caramel	6	6	21	65	58
Marshmallow	15			85	50

Type	Water Minimum limit	Protein Minimum limit	Fat Minimum limit	Carbohydrate Minimum limit	Total sugers Minimum limit
Fondant	6			95	10
Fudge with vanilla	7	3	13	77	70
Fudge with chocolate	21	4	8	65	33
Turkish delight	20				60
Fruit pastes	6		10		45
<b>Toffee</b>	8		30% (types made from laban)  5% ( types added to it reduction materials)		65

Glucose percentage shall not exceed 50% of total sugars.

\*Gelatin , starch and Arabic gum shall not be less than 50%.

## 5 SAMPLING

Sampling shall be carried out according to the GSO standard mentioned in (2.10).

## 6 METHODS OF TEST

### 6.1 Tests

#### 6.1.1 Sensory evaluation

It shall be evaluated according to the GSO standard mentioned in( 2.9)

#### 6.1.2 Detection of foreign matters

It shall be detected according to the GSO standard mentioned in( 2.9).

#### 6.1.3 Moisture determination

It shall be determined according to the GSO standard mentioned in (2.7).

#### 6.1.4 Sugars determination:

It shall be determined according to the GSO standard mentioned in( 2.7).

#### 6.1.5 Determination of contaminating elements:

It shall be determined according to the GSO standard mentioned in( 2.3).

#### 6.1.6 Determination of starch

It shall be determined according to the GSO standard mentioned in (2.16).

**6.1.7 Determination of non-organic matters**

Talcum powder: It shall be calculated by the difference in ash determination by adding dilute hydrochloric acid to the ash then ash again. In case talcum powder is present, the ratio of soluble ash in the acid be high.

**6.1.8 Detection of colouring matter**

Detection shall be carried out according to the GSO standard mentioned in ( 2.5).

**6.1.9 Detection of rancidity**

It shall be carried out according to the GSO standard mentioned in (2.2).

**6.1.10 Detection of pork fat**

It shall be carried out according to the GSO standard mentioned in ( 2.17).

**6.1.11 Detection of ethanol**

It shall be carried out according to the GSO standard mentioned in (2.8).

**6.1.12 Detection of salmonella**

It shall be carried out according to the GSO standard mentioned in (2.11).

**6.1.13 Determination of yeasts and moulds**

It shall be carried out according to the GSO standard mentioned in ( 2.14).

**6.1.14 Determination of total count of bacteria**

It shall be determined according to the GSO standard mentioned in (2.15).

**6.1.15 Detection of coliform bacteria**

It shall be carried out according to the GSO standard mentioned in (2.12).

**6.2 Tests shall be carried out on the representative sample taken according to 5 to determine its compliance with all the items of this standard.****7 PACKAGING, TRANSPORTATION AND STORAGE****7.1 Packaging**

The product shall be packed in clean, suitable, sound, moisture proof, and well sealed containers that have no effect on product properties.

**7.2 Transportation**

Transportation shall be carried out in such a way as to protect the product from mechanical damage and contamination.

**7.3 Storage**

The product shall be stored under suitable conditions in ventilated stores.

**8 LABELLING**

Without prejudice to the provisions of the GSO standard mentioned in (2.1) and (2. 6) the following shall be declared on the label of the product:

**8.1 Name of food: soft candy****8.2 Candy type according to item (4).**

- 8.3 Food additives (if used).
- 8.4 Nutritional Facts ( if the covers size no allow ,then its written in the outer container).
- 8.5 Not be placed on the packaging or candy covers any graphics or pictures or phrases that are incompatible with the values Religious and moral.
- 8.6 Determining the ages excluded from consumption with clear words such as "not intended for children under the age of (.....)" if the nature of the candy is dedicated to a particular age.