



## Technical Specifications for: CANNED PEAS AND CARROTS

**Version:** 2

**Replacing:** v.1, 2021

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**FOSTER Reference:** FS00011

**Key update:**

- Specification aligned with new template
- Inclusion of packaging integrity requirement
- Inclusion of swelling tests

### 1. Introduction

**Product name:** Canned peas and carrots

**General description:**

The specification applies to the product distributed generically by WFP.

**Definitions and other introductory details:**

Not applicable

**The following aspects are as per contract:**

- Can size
- Empty can weight
- Size of peas
- Type of carrot
- GMOs-related requirements
- Specific labelling requirements
- Specific product net weight

### 2. Standards

Except when specified otherwise in the contract, the raw materials, the manufacture, testing, packaging and labelling, of the product shall be in strict compliance with the specifications set forth herein, and with the latest edition of the following standards/guidelines (whichever is stricter). Supplier shall not deviate in any way from the specifications without WFP's prior written consent.

Codex Texts can be found in the following webpages:

- Standards: <https://www.fao.org/fao-who-codexalimentarius/codex-texts/list-standards/tr/>;
- Codes of practice: <https://www.fao.org/fao-who-codexalimentarius/codex-texts/codes-of-practice/en/>;
- Guidelines: <https://www.fao.org/fao-who-codexalimentarius/codex-texts/guidelines/tr/>;
- Maximum Residue Limits (MRLs) and Extraneous Maximum Residue Limits (EMRLs) for pesticides:

<https://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/en/>;

- Additionally, Guidelines of International Commission on Microbiological Specifications for Foods can be found here:  
<https://www.icmsf.org/publications/books/>.

### Applicable Standards

- CODEX GENERAL STANDARD FOR CONTAMINANTS AND TOXINS IN FOOD AND FEED (CXS 193-1995)
- CODEX GENERAL PRINCIPLES OF FOOD HYGIENE (CXC 1-1969)
- CODEX MAXIMUM RESIDUE LIMITS (MRLs) AND CODEX EXTRANEOUS MAXIMUM RESIDUE LIMITS (EMRLs) FOR PESTICIDES
- RECOMMENDED METHODS OF SAMPLING FOR THE DETERMINATION OF PESTICIDE RESIDUES FOR COMPLIANCE WITH MRLS (CXG 33-1999)
- CODEX GENERAL STANDARD FOR FOOD ADDITIVES (CXS 192-1995)
- CODEX CODE OF PRACTICE ON FOOD ALLERGEN MANAGEMENT FOR FOOD BUSINESS OPERATORS (CXC 80-2020)
- CODEX GENERAL GUIDELINES ON CLAIMS (CXG 1-1979)
- CODEX GENERAL STANDARD FOR THE LABELLING OF PREPACKAGED FOODS (CXS 1-1985)
- CODEX GUIDELINE ON NUTRITION LABELLING (CXG 2-1985)
- CODEX CODE OF HYGIENIC PRACTICE FOR LOW AND ACIDIFIED LOW ACID CANNED FOODS (CXC 23-1979)
- CODEX CODE OF PRACTICE FOR THE PREVENTION AND REDUCTION OF INORGANIC TIN CONTAMINATION IN CANNED FOODS (CXC 60-2005)
- CODEX GUIDELINES PROCEDURES FOR THE VISUAL INSPECTION OF LOTS OF CANNED FOODS FOR UNACCEPTABLE DEFECTS (CXG 17-1993)
- CODEX STANDARD FOR CERTAIN CANNED VEGETABLES (CXS 297-2009)

### 3. Raw Materials

All ingredients shall be of good quality, comply with the latest version of Codex Alimentarius and applicable food laws and regulation in the food originating countries (which-ever is stricter). Where there is no standard available, The Joint FAO/WHO Expert Committee on Food Additives (JECFA) and The European Food Safety Authority (EFSA) evaluations shall be considered for guidance limits.

Suppliers shall conduct risk assessment on raw materials to ensure quality of raw materials is adequate to meet final product specifications.

The table for raw materials presents a non-exhaustive list of food commodity standards. Only additives listed and utilized as per the standards specified in the Applicable Standards section above may be present in the products. Additional requirements on raw materials, if specified in the table below, shall also be adhered to.

Raw material name	Applicable Food Standards	Additional Requirements
Raw materials	n/a	As per supplier's product.


#### 4. Processing

##### Method of Processing

Not applicable

##### Thermal processing requirements

The manufacturing facility shall establish the thermal processes used to assure commercial sterility of its canned products through scientific validation studies. Thermal process establishment must consist of two parts: 1) temperature distribution studies specific to the process lines and retort systems used; and 2) heat penetration studies specific to the product form, fill medium, ingredients and can size. The results for such studies must determine how the minimum  $F_0$  value to achieve commercial sterility is achieved when the operating parameters for the facility's cook schedules are followed. The studies shall also determine the critical factors for the thermal process, provide alternative process schedules, document the retort configuration and instrumentation, determine vent schedules and cooling protocols. Retort records must provide proof that these are monitored and complied. Such records shall be reviewed by a trained individual within 24 hours of the completion of the cook. Thermal processes must be established prior to use and validated at a frequency that reflects any changes that may impact the safety of the process or product. In the absence of such validation triggers, thermal process validation may be done annually or once every two years. The cans should be shelf stable even when stored under tropical conditions ( $>40^{\circ}\text{C}$ ). Risk of thermophilic spoilage should be adequately managed by the producer (e.g. appropriate thermal treatment, raw material controls, stability studies).

#### 5. Food safety and quality management at manufacturing premises

The manufacturer shall be able to demonstrate by principle and practice the adoption, implementation and recording of:

- Good Manufacturing Practices (GMPs)
- Good Hygiene Practices (GHPs)
- Hazard Analysis Critical Control Point Program (HACCP)
- Global Food Safety Initiative (GFSI) scheme principles

In this context an appointed WFP staff/Quantity&Quality Inspector/Surveyor/Auditor is entitled to visit the factory without prior notice during any period when WFP product is being manufactured to check that production is done as per WFP contract specifications.

The WFP staff/Inspector/Surveyor/Auditors may examine any aspect of Supplier's manufacturing premises and its documentation relating to any products or services provided to WFP, including but not limited to production facilities, procedures, records, certifications, or practices.

Food suppliers shall notify WFP immediately of lots (pre-delivery and post-delivery) that fail to meet contract requirements. Any testing on food safety parameters for foods (and/or the associated raw materials) delivered to WFP shall be pre-agreed with WFP.

The producer shall be authorized by competent governmental authorities to process products for human consumption and to export. The authorization of export is only required when the producer supplies WFP internationally.

#### 6. Product Specifications

- The product's organoleptic characteristics shall be characteristics of the designated product.
- The product shall meet the testing requirements stated in this document.

- Lots that contain more than 0.01% of serious defects (as defined here: <https://inspection.canada.ca/preventive-controls/metal-can-defects/eng/1510763304486/1510763304952>) are considered not to comply to this specification.
- The manufacturing facility shall have an incoming goods sampling program for empty cans and lids. Specifications for can bodies and ends must be on file and specific to the can supplier. They shall include details of can dimensions, end profile, can body weight, can body and end thickness, side seam weld, empty can water capacity, external and internal lacquers (coatings), seam dimensions of the sealed end. The seam dimensions must specify acceptable range or limits for parameters, such as seam thickness, seam length, body hook and cover hook, needed to calculate overlap as well as those, such as vacuum, countersink, wrinkle, that could indicate potential can defects from the seaming operation. During production, the manufacturing facility shall ensure that seamers are operated to match the can properties and obtain a vacuum to maintain a hermetic seal. Checks for defects in seamed finished product cans shall be done visually at a minimum of every 30 minutes. In addition, seam teardowns must be carried out at minimum every two hours, using either a micrometer or a seam projector. All seaming records are considered legal documents and therefore, must be recorded accurately and reviewed within 24 hours of production.
- GMOs-related requirements shall be as per contract. When non-GMOs or GMOs-free requirements are made in the contract without specifying a maximum limit, the product is considered as acceptable if it contains, consists of or is produced from materials with traces of authorized GMOs in a proportion no higher than 0.9% (if the product is not consisting of a single ingredient the limit shall be applied to each ingredient considered individually), provided that GMOs presence is adventitious or technically unavoidable, in accordance with Regulation (EC) No 1829/2003 (the latest version in force). Operators must be in a position to supply evidence to satisfy the competent authorities that they have taken appropriate steps to avoid the presence of such material. The EU register of authorised GMOs is available at <https://webgate.ec.europa.eu/dyna2/gm-register/>.

## **Product Safety**

- The product shall not contain any harmful substances including, but not limited to, micro-organisms, heavy metals, pesticides, mycotoxin, foreign matter or anti-nutritional factors, in amounts that may represent a hazard to health. Where there is no applicable standard available, The Joint FAO/WHO Expert Committee on Food Additives (JECFA) and The European Food Safety Authority (EFSA) evaluations shall be considered for guidance limits.
- Fit for human consumption guarantee: Suppliers shall manage the quality of their product and guarantee that the product is 'fit for human consumption' and in line with TIC Council/IFIA Guidelines\*.
- The product shall comply strictly with Codex General Standard for Contaminants and Toxins in Food and Feed (CXS 193-1995), Codex Maximum Residue Limits (MRLs) and Codex Extraneous Maximum Residue Limits (EMRLs) for Pesticides and Guidelines of International Commission on Microbiological Specifications for Foods\*\*.

Link of references mentioned above:

\*[http://www.ifia-federation.org/content/wp-content/uploads/Fit\\_for\\_Human\\_Consumption\\_Bulletin\\_Rev\\_4.pdf](http://www.ifia-federation.org/content/wp-content/uploads/Fit_for_Human_Consumption_Bulletin_Rev_4.pdf).

\*\*<https://www.icmsf.org/publications/books/>.

## **Shelf life**

- The product shall have a minimum shelf-life as stated below when stored dry under tropical conditions (>40°C). Or reduced shelf life as per contract.
- The product shall meet this specification, remain stable and suitable for human consumption throughout the shelf-life.
- Suppliers should conduct shelf-life studies following WFP shelf-life study requirements (available at

<https://docs.wfp.org/api/documents/WFP-0000118387/download/>) to support the shelf-life claim.

- The product shall have a minimum of 80% of shelf-life remaining when presented to WFP for inspection, unless otherwise authorized by WFP.
- The product must be stored above 0°C in dry and hygienic conditions.

**Shelf-Life Duration:** 36 months

## **7. Packaging and Marking**

When a WFP contract requires break-bulk delivery and/or empty packaging to be delivered with food, the product packaging, marking and stuffing of containers shall comply with the following specification:

[docs.wfp.org/api/documents/WFP-0000152330/download/](https://docs.wfp.org/api/documents/WFP-0000152330/download/)

Templates for packaging artwork are available in the specification above and additional labelling requirements shall be as per contract.

### **Other information on packaging and labelling:**

Any ingredient or processing aid or any other substances listed in Annex II\* or derived from a substance or product listed in Annex II\* causing allergies or intolerances used in the manufacture or preparation of a food and still present in the finished product, even if in an altered form, shall be labelled in bold letters. Where a justified, risk-based assessment demonstrates that the nature of the production process/facility is such that cross-contamination (cross-contact) from an allergen can be prevented, the labelling of this allergen is voluntary.

In the absence of a list of ingredients, the labelling shall comprise the word “contains” followed by the name of the substance or product as listed in Annex II\* except for products constituted by a single ingredient if distributed under a name which clearly refers to the corresponding substance or product as listed in Annex II\*. For cross contamination labelling, the following terms should be used: “May contain....”.

The supplier is responsible for creating and maintaining an updated list of allergens present in the manufacturing facility. When a new allergen is introduced, the supplier shall evaluate the risk. When the allergen labelling is updated, such update shall be communicated to WFP beforehand.

\*Annex II refers to the Annex II of EU Regulation 1169/2011 (latest version).

## **8. Technical Documentation**

When required, suppliers shall submit a Certificate of Analysis (CoA) of the final product to WFP, along with other documents for payment. Additionally, suppliers shall provide other technical documents upon request from WFP.

## **9. Analytical Requirements**

Suppliers shall follow their own food safety and quality management plan. WFP can conduct tests on products as per the Table below. Additionally, WFP reserves the rights to change this testing plan at any time.

Any products taken for the purpose of weight check and lab testing (including retention samples) shall be replenished by the suppliers. The shipment quantity shall not be less than the purchased quantity. When non-destructive inspection is done, suppliers shall close the package or replace it.

In addition to the pre-delivery Q&Q inspection, WFP can also perform prior-assessment (e.g., documentation check, production monitoring, audits, assessment of raw materials, etc).

Suppliers acknowledge that any prior-assessment by WFP or its designated inspection agents does not constitute a determination whether the specifications for the foods set out in this document or any purchase order (including mandatory technical requirements) have been met. Suppliers will be required to comply with their warranty and other contractual obligations whether or not WFP carries out such prior-assessment.

The prior-assessment undertaken by WFP or its designated inspection agents will not substitute for the pre-delivery Q&Q inspection and testing of the goods upon delivery to WFP.

The body of the specification shall be considered in order to verify if any additional requirement is applicable to the

specific purchase.

Unless otherwise specified, all analysis requirements refer to the product as sold.

## Quantitative Requirements

Test Name	Unit	Min	Max	Reference methods (latest versions) *	Test Type
CARROT: Black or dark green collar	% of drained product weight	0	20	Visual examination, weighing **	Type A
CARROT: Blemished carrots	% of drained product weight	0	20	Visual examination, weighing **	Type A
CARROT: Extraneous plant material/1000g total content of carrot in the container	pieces	0	1	Visual examination	Type A
CARROT: Fibrous	% of drained product weight	0	10	Visual examination, weighing **	Type A
CARROT: Malformations	% of drained product weight	0	20	Visual examination, weighing **	Type A
CARROT: Mechanical damage	% of drained product weight	0	10	Visual examination, weighing **	Type A
CARROT: Unpeeled parts (30% or more of the surface is unpeeled)	% of drained product weight	0	20	Visual examination, weighing **	Type A
CARROT: total amount of defects above	% of drained product weight	0	25	Visual examination, weighing **	Type A
Drained weight	% m/m	62.5	100	AOAC 968.30	Type A
Minimum fill (water capacity of the can)	%	90	100	ISO 90-1 ISO 90-2	Type A
PEAS: Blemished peas	% of drained product weight	0	5	Visual examination, weighing ***	Type A
PEAS: Extraneous plant material	% of drained product weight	0	0.5	Visual examination, weighing ***	Type A
PEAS: Pea fragments	% of drained product weight	0	10	Visual examination, weighing ***	Type A
PEAS: Seriously blemished peas	% of drained product weight	0	1	Visual examination, weighing ***	Type A
PEAS: Total above defects	% of drained product weight	0	12	Visual examination, weighing ***	Type A
PEAS: Yellow peas	% of drained product weight	0	2	Visual examination, weighing ***	Type A
Tin (Sn)	mg/kg	0	250	AOAC 985.16	Type A

