Technical Specifications for

SPLIT PEAS

Commodity code: **PULSPE000**
Version: **2017**
Date of issue: **13 March 2017**
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This is 1st version of WFP generic specification for Split peas which replaces the version draft issued 5, July 2010, Australia yellow split peas issued on 27 March, 2011; Canada yellow split peas issued on 27 March, 2011; US Yellow-Green split peas issued on 20, September 2013.

1. SCOPE

This specification applies to dry Split Peas (hereafter called the product) purchased and/or distributed by WFP.

2. REFERENCES

The following main references are referred in this specification. Other specific standards and regulations are cited in paragraphs of the specification. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

- Codex standard for certain pulses CODEX STAN 171-1989.
- General standard for contaminants and toxins in food and feed: CODEX STAN 193- 1995.
- General standard for the labelling of prepacked foods: CODEX STAN 1-1985.
- East African Standard_ Dry split peas_ Specification EAS 761:2013.

3. DEFINITIONS

Split peas
Threshed seeds of the garden type pea plant (*Pisum sativum L.* and *Pisum sativum var. arvense (L.) Poir*.), which have been split into halves or smaller pieces.

Bleached
Green-coloured varieties which are bleached distinctly yellow in colour or split peas of yellow-coloured varieties which are bleached distinctly green in colour.

Broken
Broken in split peas are peas in which the cotyledon has been broken.

Contrasting
Split peas which are of a colour contrasting with the predominating class of split peas. Bleached split peas of the predominating class should not be considered as contrasting split peas.

Contrasting classes
Seeds of a similar colour but a different commercial type.

Damaged
Split peas which are distinctly damaged by frost, weather, disease, heat (other than to a material extent), or other causes (except weevil or material heat damage), or are distinctly soiled or stained by nightshade, dirt, or toxic material.

Defective
Weevil-damaged split peas, heat-damaged split peas, damaged split peas, contrasting split peas, whole peas, white caps, and bleached split peas.

Total defective grains
Total defective grains is not the sum total of the individual defects. It is limited to 70% of the sum total of individual defects).

Foreign material
Any extraneous matter than dry peas or other food grains comprising of
a) "inorganic matter" includes metallic pieces, shale, glass, dust, sand, gravel, stones, dirt, pebbles, lumps or earth, clay, mud and animal filth etc;
b) "organic matter" consisting of detached seed coats, straws, weeds and other inedible grains etc.

Poisonous, toxic and/or harmful seeds
Seed which if present in quantities above permissible limit may have damaging or dangerous effect on health, organoleptic properties or technological performance such as Jimson weed — datura (*D. fastuosa* Linn and *D. stramonium* Linn.) corn cokle (*Agrostemma githago* L., *Machai Lallium remulenum* Linn.) Akra (Vicia species), *Argemone mexicana*, Khesari and other seeds that are commonly recognized as harmful to health.

White caps
Split peas with seed coats attached.

Food grade material
Packaging material, made of substances which are safe and suitable for their intended use and which will not impart any toxic substance or undesirable odour or flavour to the product.

Filth
Impurities of animal origin, including dead insect.

Whole peas.
Dry peas which are not split.

4. PRODUCT SPECIFICATION

4.1 General requirements

4.1.1 Toxic or noxious seeds

The product covered by the provisions of this specification shall be free from the following toxic or noxious seeds in amounts which may represent a hazard to human health.

– Crotolaria (*Crotalaria* spp.), Corn cockle (*Agrostemma githago* L.), Castor bean (*Ricinus communis* L.), Jimson weed (*Datura* spp.), and other seeds that are commonly recognized as harmful to health.

4.1.2 Contaminants

4.1.2.1 Heavy metals

The product shall be free from heavy metals in amounts which may represent a hazard to health.

4.1.2.2 Pesticide residues

The product shall comply with those maximum residue limits established by the Codex Alimentarius Commission for this commodity.

4.1.2.3 Mycotoxins

The product shall comply with those maximum mycotoxin limits established by the Codex Alimentarius Commission for this commodity.

4.1.3 Hygiene

4.1.3.1 It is recommended that the product covered by the provisions of this standard be prepared and handled in accordance with the appropriate sections of the *Recommended International Code of Practice – General Principles of Food Hygiene* (CAC/RCP 1-1969), and other Codes of Practice recommended by the Codex Alimentarius Commission which are relevant to these products.

4. 1.3.2 To the extent possible in good manufacturing practice, the products shall be free from objectionable matter.

4. 1.3.3 When tested by appropriate methods of sampling and examination, the products:

– shall be free from micro-organisms in amounts which may represent a hazard to health;

– shall be free from parasites which may represent a hazard to health; and

– shall not contain any substance originating from micro-organisms in amounts which may represent a hazard to health.

4.1.4 Fit for human consumption guarantee

Suppliers shall have to check the quality of their products and guarantee that the product covered by the provision of this specification is '**fit for human consumption'**.

4.2 Specific requirements

The product shall be fresh, free from abnormal flavours, odours, colour and live insects.

The product must conform to the requirements specified in table 2. The characteristics (quality, presentation, packaging, marking) of entire lot must be homogenous.

5. PACKAGING AND MARKING

The product covered by the provisions of this specification must be packed in appropriate packaging which safeguard the hygienic, nutritional, technological, and organoleptic qualities of the product. The containers, including packaging material, shall be made of substances which are safe and suitable for their intended use. They should not impart any toxic substance or undesirable odour or flavour to the product.

5.1 Packaging

Unless otherwise specified in the contract, the product covered by this specification must be packed in polypropylene bags of a net content of 50 kg, fit for export and multiple handing. The specific requirements for the bags are:

- Made of virgin woven food grade polypropylene (PP)
- The fabric contains an inhibitor to resist ultraviolet (UV) absorption: capable to retain 70 percent of its original minimum tensile strength in each direction after a minimum 200 hours of exposure in a weatherometer when tested with test method ASTM D5034.
- The fabric shall be finished by coating or other suitable method to prevent slippage.
- Construction of fabric must be solid to sustain harsh handling.
- Heat cut mouth to prevent fibrillation.
- Bottom mouth is single folded and sewed.
- Top mouth is closed by stitching with suitable thread (yarn).
- Bags must be new, uniform, clean, sound and free from insect, fungal infestation.
- Density (grammage): minimum 92 g/square meter (gsm).
- Dimension and weight: much be suitable and fit to the net weight of product. Example for 5 and 50 kg bags is shown in table 1.

Table 1: Packaging for 5 and 50 kg bags of peas

Net weight	**PP density** (gsm)	**Dimension**		**Weight of a piece** (g)
		W (cm)	*L (cm)**	
5 kg	92	35	48	33
50 kg	92	55	105	110

** Including top and bottom folds*

The bags of finished product must pass the drop test (after each drop, there shall be no rupture or loss of contents) following the principles of the drop test standard (EN 277, ISO 7965-2 or equivalent) with following sequence:

+ Butt dropping: Bag is dropped from a height of 1.20m on the bottom and the top of the bag.

+ Flat dropping: Bag is dropped from a height of 1.60m twice on one flat face and twice on the opposite flat face.

Unless otherwise specified in the contract, two percent marked bags (included in the price) must be sent with the lot.

<u>Note:</u> For shipping containers, unless otherwise specified in the contract, kraft paper must be adhered to all internal sides, door, floor of container. Kraft paper need to be placed on the top of packaging. Desiccant needs to be placed/laid in container as appropriate location in order to absorb moisture. Supplier needs to use high quality desiccant and calculate the quantity of desiccant based on:

- *Efficiency of desiccant*
- *Length of time in transit in container*
- *Container capacity*

Supplier needs to provide in the offer the type of desiccant and quantity to be used for the consignment. If silica gel is used, 15 bags of at least 1 kg each must be placed in each 20 feet container.

5.2 Marking

The labelling of the product covered by the provision of this specification shall comply with CODEX STAN 1-1985, rev. 2010.

The following information should be available on bags:

- Name of the product

- Net weight
- Crop year
- Name of supplier

Additional marking is as per contractual agreement.

6. STORING

The product must be stored under dry, ventilated and hygienic conditions and far from all source of contaminations.

7. ANALYTICAL REQUIREMENTS

Unless otherwise decided by WFP, the principal tests in table 2 are performed by WFP appointed inspection company/ laboratory and the results of the tests shall be used for lot release decision. If the analysis certificate indicates at least a parameter doesn't comply with WFP specification, WFP will decide whether or not the lot can be accepted. Additional tests may be defined in case of further quality assessment is required. Supplier/processor should also conduct internal tests to make sure that the quality of the product meets WFP requirements.

Table 2: List of compulsory tests and reference methods

No	**Tests**	**Requirements**	**Reference methods** *(or equivalent, Latest version)*
1	Moisture	Max. 13.0 % m/m	ISO 24557
2	Pest damaged grains	Max. 1.0% m/m	
3	Heat damage grains	Max. 0.5% m/m	
4	Bleached grains	Max. 3.0% m/m	
5	White caps grains	Max. 3.0% m/m	
6	Whole peas	Max. 1.0% m/m	
7	Contrasting classes	Max. 1.0% m/m	
8	Total defective grains	Max. 5.0% m/m	
9	Foreign matter	Max. 0.3 % m/m	
10	Inorganic matter	Max. 0.2 % m/m	
11	Filth	Max. 0.1 % m/m	ISO 605
12	Total aflatoxin (B1+B2+G1+G2)	Max. 20.0 ppb	ISO 16050
13	Organoleptic quality	Bright and clear appearance, Normal smell and color	Organoleptic inspection
14	Live insect	Nil	Visual inspection
15	Color *(only if required)*	As per contractual agreement	ISO 605
16	GMO *(only if required)*	< 0.9% of GMO material in total peas DNA	Quantitative PCR- ISO 21570