Technical Specifications of

WHOLE DRY PEAS - SYRIA

Commodity code: **PULPEA030 – green, PULPEA040 – yellow**
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1. SCOPE

This specification applies to Whole Dry Peas (*Pisum sativum L.* and *Pisum sativum var. arvense (L.) Poir.*), which are intended for direct human consumption and purchased by WFP for Syria.

2. GENERAL REQUIREMENTS

Unless otherwise specified, Whole Dry Peas must comply with the following guidelines or standards of (latest versions):

- Syrian National Standard SNS 2658:2002 Dried Peas.
- Syrian National Standard SNS 575:2009 - Maximum Level of heavy metal contaminates in foods
- Syrian National Standard SNS 2179:2007 - Microbiological requirements for foods
- Syrian National Standard SNS 2680 :2008 - The maximum limits of mycotoxins in the food and feed stuffs
- Syrian National Standards SNS 1781: 2012 – Shelf life limits of food products.
- Codex Standard 171-1989, Standard For Certain Pulses
- Recommended International Code of Practice: General Principles of Food Hygiene CAC/RCP 1-1969 including Annex “Hazard Analysis and Critical Control Point (HACCP) System and Guidelines for its application”, of the Codex Alimentarius.
- General standard for the labelling of prepacked foods: CODEX STAN 1-1985, of the Codex Alimentarius.
- General Standard for Contaminants and Toxins in Food and Feed: CODEX STAN 193-1995
- any microbiological criteria established in accordance with the Principles and Guidelines for the Establishment and Application of Microbiological Criteria for Foods (CAC/GL 21-1997).
- All other relevant Codex Alimentarius standards and guidelines
- Peas, Official Grain Grading Guide, Canadian Grain Commission.
- United States Standards for Whole Dry Peas
- Specific requirements of the contract

3. DEFINITIONS

- **Heated**
  Peas that have dull seed coats and discoloured cotyledons ranging from light tan to dark brown are considered heated.
- **Insect damage**
  Insect damage in peas refers to damage caused by insects such as weevils.
- **Splits**
  Splits include split peas, pea hulls, split peas of other colours, broken pieces that are less than three-quarters of the whole seed, and cotyledons that are loosely held together by the seed coat.
- **Cracked seed coats**
  Cracked seed coats includes
  - Peas with cracked seed coats—if the peas are otherwise damaged, they are included in the tolerance for damage, not cracked seed coats
  - Peas with all or part of the seed coat removed1
  - Broken peas with less than one-fourth of the pea broken off—broken peas with more than one-fourth of the pea broken off are considered damaged
- **Shriveled**
  Shriveled peas are distinctly distorted and shrunken, or have a severely dimpled surface.
- **Other damage**
  - Any damage other than splits, insect damage, heated or shrivelled
  - Any discolouration or physical damage on the face of the cotyledon
- **Insect parts**
  Insect parts refers to pieces of insects such as grasshoppers and lady bugs.
- **Excreta**
  Excrement from any animal including mammals, birds and insects.
- **Ergot**
  Ergot is a plant disease producing elongated fungus bodies that have a purplish-black exterior, a purplish-white to off-white interior, and a relatively smooth surface texture.
- **Bleached**
  Green peas are considered bleached if one-eighth or more of the surface of the cotyledon is bleached to a distinct yellow colour which is in marked contrast to its natural colour.
  Yellow peas are considered bleached if one-eighth or more of the surface of the cotyledon is bleached to a distinct green colour which is in marked contrast to its natural colour.
- **Classes**
  Peas are designated into three classes: Whole Green Peas, Whole Yellow Peas and Other Whole Peas.
  Green Peas are smooth peas with green cotyledon and green coat.
  Yellow Peas are smooth peas with yellow cotyledon and yellow coat.
  All other peas are considered as Other Whole Peas
- **Foreign material**
  All matter other than dry peas.

4. PRODUCT SPECIFICATIONS

Physical and Organoleptic Requirements

- The product shall be free from abnormal odor and taste.
- Shall be free from any foreign matter that may represent hazard to health
- Shall be free of any colorants.
- Shall be free of living insects and of pests waste.
- Shall be free from objectionable matter; not contain any substances originating from micro-organisms or any other poisonous or deleterious substances.
- Shall be free of plant diseases and noxious seeds that may contain cyanohydrin
- The physical and chemical parameters must meet parameters in Table 1. for Whole Green Peas and parameters in table 2. For whole yellow peas.

Chemical requirements

- Moisture content: maximum 13%

Microbiological requirements

- Salmonella: n=5, c=0, m=0/25g, M=-
- Yeasts and moulds: n=5, c=2, m=1.000/g, M=10.000/g

Contaminants

- Heavy metals
  Dried Peas shall be free from heavy metals in amounts which may represent a hazard to health, particularly not to exceed the following maximum limits:
  - Cd 0.1 mg/kg (Max)
  - Pb 0.2 mg/kg (Max)
- Mycotoxins
  - Total Aflatoxins (B1,B2,G1,G2): 15 µg/kg maximum
- Pesticides
  Comply with maximum residue limits established by FAO Codex Alimentarius (available at this links[1]).
- Radiation
  Radiation level found in the product shall be within the limits set by the Syrian authorities (SNS 403:2009[2]).
- Whole dry peas must comply with Annex Lists A1 and A2 of Decree # 158 dated 25/04/2017 by the Ministry of Agriculture in Syria:
  - Free from quarantine pests listed in Annex 1 (four A1 lists)
  - Free from non-quarantine pests listed in Annex 2 (four A2 lists)
  - Maximum total percentage of noxious weed seeds is 1%, with individual maximum level for each species as defined in Annex 3 (List A2 for noxious weed seeds).
  - Free from any quarantine organisms

5. ADDITIONAL REQUIREMENTS

- Shelf life: minimum 2 years

[1] http://www.fao.org/fao-who-codexalimentarius/standards/pestres/commodities/en/ and https://secure.pesticides.gov.uk/MRLs/search.asp

[2] which refers to: CAC/RCP 19-1979, CODEX- STAN 106- 1983, CODEX- STAN 1- 1985

6. PACKAGING

The product covered by the provision of this specification must be packed in appropriate, suitable, food grade, fit for export and multiple handing bags which safeguard the hygienic, nutritional, technological and organoleptic qualities of the product.

Product net weight

- Product should be packed in individual bags with 50 kg net weight
- Average net weight per batch shall not be less than the nominal net weight
- Actual net weight of individual bag should not be less than 1% of nominal net weight

Packaging - bags

- Bags 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.
- Packaging material must be compliant with food grade regulation of the country of packing.
- Unless otherwise specified in the contract, the bags should be :
  - made from woven polypropylene
  - virgin white material (no recycled material allowed)
  - anti-slip woven polypropylene material
  - minimum weight of 110 gr/bag
  - minimum meshing 10 x 10 yarns
  - PP fibers treated anti-UV treatment that will last for 200hrs following ASTM G90
  - heat cut mouth to prevent fibrillation
  - sewn double folder bottom with a minimum 4 dots per inch
  - Single line stitched on the top with a minimum 4 dots per inch

Compliance testing

The bags of finished product must pass the drop test 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.

There shall be no rupture or loss of contents after each drop.

7. MARKING

All markings should be written in English/Arabic, including:

- Name of the product: Dried Peas
- Net weight
- Name and address of the supplier
- County of origin.
- Crop year
- Production date and expiry date (month/year)

Additional marking is as per contractual agreement.

8. STORAGE

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

9. ANALYTICAL REQUIREMENTS

10.1 *GREEN DRY PEAS*

Table 1: List of compulsory tests and reference method

No	Tests	Requirements	Reference method *(or equivalent; Latest version)*
1.	Moisture	Max. **13.0 %**	ISO 712- 2009, ISO 24557:2009
2.	Foreign material - total	Max **1.0** %	Visual examination, ISSN 1704-5118
3.	Damage – Total (heated, insect damage, shrivelled, splits, other)	Max **7.0** %	
4.	Damage - Insect	Max **5.0** %	
5.	Cracked seed coats including splits	Max **13.0** %	
6.	Other classes	Max **3.0** %	
7.	Bleached	Max **6.0** %	
8.	Ergot	Max **0.01**%	
9.	Insect parts	Max **0.25** %	
10.	Organoleptic quality	**Natural odour, fair colour and appearance**	
11.	Class	**Green Peas**	
12.	Live insect	**Nil**	ISO 6639-1:1986, visual examination
13.	Total aflatoxin (B1, B2, G1, G2)	Max **15** ppb	ISO 16050:2003
14.	Heavy metals - Cd	**0.1** mg/kg	AOAC 999.10-2005
15.	Heavy metals - Pb	**0.2** mg/kg	AOAC 999.10-2005, AOAC 972.25-1976
16.	Pesticides, multi-residue screening[3]	Limits as listed in the link below[4]	EN 15662
17.	Radionuclide content (only for Ukraine origin peas)	Cesium-137, Radionuclides less than **20 Bq/Kg**	WEAC.RN.METHOD 3.0 (Cs and other)

Frequency of analyses

Unless otherwise specified, analyses under 1-12 should be performed every 500 tons. Other analyses should be done in the frequency one per shipment.

[3] Multi residue screening as per contracted laboratory screening method
[4] https://secure.pesticides.gov.uk/MRLs/search.asp

10.2 *YELLOW DRY PEAS*

Table 2: List of compulsory tests and reference method

No	**Tests**	**Requirements**	**Reference method** *(or equivalent; Latest version)*
1.	Moisture	Max. **13.0 %**	ISO 712- 2009, ISO 24557:2009
2.	Foreign material - total	Max **1.0** %	Visual examination, ISSN 1704-5118
3.	Damage – Total (heated, insect damage, shrivelled, splits, other)	Max **7.0** %	
4.	Damage - Insect	Max **5.0** %	
5.	Cracked seed coats including splits	Max **13.0** %	
6.	Other classes	Max **3.0** %	
7.	Bleached	Max **6.0** %	
8.	Ergot	Max **0.01**%	
9.	Insect parts	Max **0.25** %	
10.	Organoleptic quality	**Natural odour, fair colour and appearance**	
11.	Class	**Yellow Peas**	
12.	Live insect	**Nil**	ISO 6639-1:1986, visual examination
13.	Total aflatoxin (B1, B2, G1, G2)	Max **15** ppb	ISO 16050:2003
14.	Heavy metals - Cd	**0.1** mg/kg	AOAC 999.10-2005
15.	Heavy metals - Pb	**0.2** mg/kg	AOAC 999.10-2005, AOAC 972.25-1976
16.	Pesticides, multi-residue screening[5]	Limits as listed in the link below[6]	EN 15662
17.	Radionuclide content (only for Ukraine origin peas)	Cesium-137, Radionuclides less than **20 Bq/Kg**	WEAC.RN.METHOD 3.0 (Cs and other)

Frequency of analyses

Unless otherwise specified, analyses under 1-12 should be performed every 500 tons. Other analyses should be done in the frequency one per shipment.

[5] Multi residue screening as per contracted laboratory screening method
[6] https://secure.pesticides.gov.uk/MRLs/search.asp