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Product Specification

Whole 25-35mm Manufacturing Strawberry

PACK SIZE 1 x 10kg; 4 x 2.5kg; 5 x 1kg

ORIGIN: Morocco /China / Turkey / Poland

GENERAL The product shall be prepared from fresh sound raw material that is free from all toxic residues and taints and shall comply with all current UK/EU Food Legislation. The product is intended to be used as ingredient that is further processed and heat-treated before final consumption.

INGREDIENTS Strawberries 100% Declare as: Strawberries *(Fragaria virginiara)*

PROCESSING Strawberries are delivered fresh to the factory, each load is quality assurance sampled for foreign material and physical defects. The strawberries are washed, dried and de-stalked, inspected and frozen to -18°C or below.

PACKING During packing the strawberries are inspected before being weighed and filled into blue poly lined cartons, or, into 2.5kg heat sealed poly bags then packed four bags to a carton. The cartons are Best Before and Production date coded, check weighed, metal detected, palletised and stretch-wrapped before being returned to store at -23°C to await despatch to the UK, at -18°C.

QUALITY CONTROL Checks are carried out on the following: -

Processing: -
- Raw material
- Final Product
- Temperature

Packing: -
- Metal detection
- Check weighing
- Final product physical defect levels
- Organolepsis
- Case quantity
- Case sealing
- Case coding and print quality

DEFECT TOLERANCES

Assessed on 1000g sample (frozen)

Defect	Tolerance
Welding (number)	8
Foreign Matter (FM)	Nil
Foreign Extraneous Vegetable Matter (FEVM)	Nil
Extraneous Vegetable Matter (EVM)	2
Under-ripe Berries	15
Major Blemishes	6
Minor Blemishes	12
Damaged	5
Malformed	4
Attached Calyx/Stalk	10
Undersize (Dia <25mm)	5%
Oversize (Dia >35mm)	10%

DEFINITIONS OF DEFECTS

Welding
This is where two or more strawberries are welded together, and which cannot be readily separated without causing damage to the product. The number of the berries affected shall be recorded. These strawberries shall then be separated and assessed for the remainder of the defects.

Foreign Matter:
This includes any material not derived from the strawberry plant nor defined as FEVM. Examples of foreign matter include insects, pieces of insects, wood, glass, mineral stones, metal, slugs etc.

Foreign Extraneous Vegetable Matter
This includes any vegetable material not derived from the strawberry plant, and which is non-toxic.

EVM:
This includes any extraneous vegetable material derived from the strawberry plant, other than the strawberry berry. This includes unattached calyces and part calyces, leaves and leaf pieces.

Under-ripe Berries
This includes berries which are white or green for more than 25% of their surface area, as a result of immaturity.

Major Blemishes
This includes strawberries which are blemished to the extent that the area affected is equal to, or greater than, an equivalent circle of 6mm in diameter, either as a single blemish or an aggregate of blemishes on the same berry.

Minor Blemishes
This includes strawberries which are blemished to the extent that the area affected is equal to an equivalent circle of between 2mm and 6mm in diameter, either as a single blemish or an aggregate of blemishes. Blemishes less than 2mm in diameter shall be ignored. Over-ripe berries shall be included in this category.

Damaged
These are berries which have been broken, or badly squashed, causing a reduction in the diameter of the berry.

Malformed
These are berries which are seriously malformed, for example those with monkey faces (noses) caused by faulty fertilisation (see Figures 1 and 2).

Attached Calyx/Stalk
These are berries where the removal of the calyx is incomplete, and the calyx, part calyx or stalk remains attached to the berry (see Figures 3, 4 and 5).

Size Grading
See above table.

The below minimum numbers of samples should be inspected and average result to be out-of-spec.

	Minimum samples to be taken (1Kg of product per each item)		
Quantity Delivered (Kg)	10Kg Boxes	20Kg Bags	25Kg Bags
<1000	4	2	2
<2000	8	5	4
<5000	10	7	5
<10000	15	10	8
≤27000	20	15	12

Illustration of Defects

(i) Malformed

Figures 1 and 2 illustrate monkey face (nose) malformation

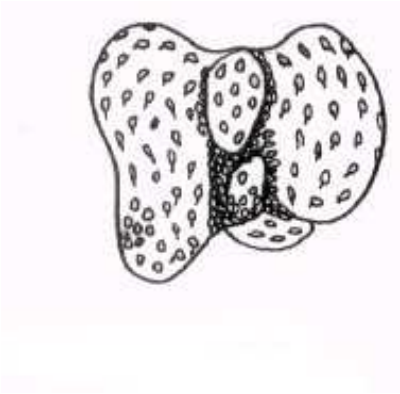

Figure 1

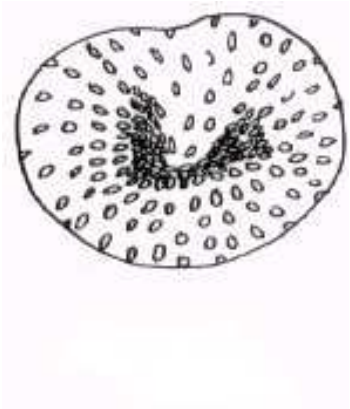

Figure 2

(j) Attached Calyx/Stalk

Figures 3, 4 and 5 illustrate berries from which the calyx has not been completely removed

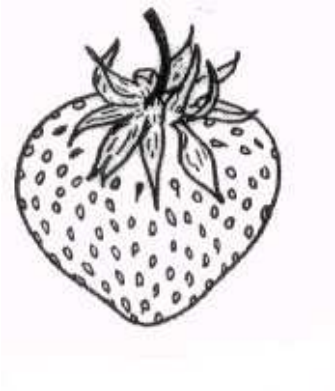

Figure 3 - Calyx attached

Figure 4 - Part of Calyx attached

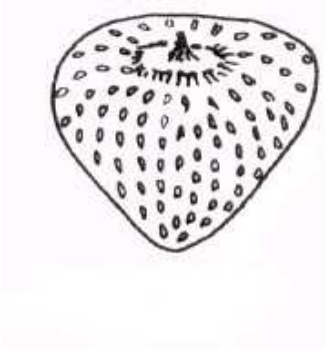

Figure 5 - Stalk point attached

ORGANOLEPSIS (Carried out on a thawed sample.)

COLOUR Red, typical of the variety.

FLAVOUR Full, natural and characteristic strawberry flavour.

TEXTURE Berries shall be firm but tender, and shall have substantially retained their shape.

Average sample

MICROBIOLOGICAL

Organism	Target	Maximum
T V C @ 30°C	1×10^5	1×10^6
Total Coliforms	5×10^2	5×10^3
E. coli	Nil	1×10^2
Yeasts & Moulds	1×10^2	5×10^3
Listeria mono	Absent in 25g	1×10^2
Salmonella	Absent in 25g	Absent in 25g

ANALYTICAL

Brix 7 - 12
pH 3.2 - 3.6

WEIGHT CONTROL

The product shall be packed to minimum weight.

METAL DETECTION

All cartons shall be passed through a metal detector. The system shall be tested at least every 2 hours using ferrous, non-ferrous and stainless steel test pieces.

BEST BEFORE DATE

The product shall be twenty four months following the month of packing e.g. if packed in May 2017 then BEST BEFORE END MAY 2019. Minimum BB date on delivery: 3 months.

TRACEABILITY INFO

Production date or Lot number printed on the label as well as customer order number and/or delivery date.

STORAGE CONDITIONS

Keep frozen at - 18°C at all times.

CARTON LINERS

Blue food grade polythene liner of a **minimum** thickness of 30µm.

CARTONS

Corrugated fibreboard of glued construction, no metal staples to be used. Shall be sealed using blue adhesive tape.

NUTRITIONAL INFORMATION

This data conforms to the requirements of EC Council Directive 90/496/EEC

100g of uncooked strawberry typically contains: -

Parameter	Value / 100g	Methodology
Energy - kcal	27	McCance & Widdowson 6th Edition
Energy - kJ	116	McCance & Widdowson 6th Edition
Moisture	88.9g	McCance & Widdowson 6th Edition
Carbohydrate	6.2g	McCance & Widdowson 6th Edition
- as sugars	6.2g	McCance & Widdowson 6th Edition
- as polyols	0.0g	McCance & Widdowson 6th Edition
- as starch	0.0g	McCance & Widdowson 6th Edition
Fat	Trace	McCance & Widdowson 6th Edition
- as saturates	Trace	McCance & Widdowson 6th Edition
- as mono unsaturates	Trace	McCance & Widdowson 6th Edition
- as poly unsaturates	Trace	McCance & Widdowson 6th Edition
Protein	0.6g	McCance & Widdowson 6th Edition
Fibre	2.0g	McCance & Widdowson 6th Edition
Sodium	2mg	McCance & Widdowson 6th Edition
Vitamin A	30µg	McCance & Widdowson 6th Edition
Vitamin B_6	0.0mg	McCance & Widdowson 6th Edition
Vitamin B_{12}	0.0mg	McCance & Widdowson 6th Edition
Vitamin C	60mg	McCance & Widdowson 6th Edition
Vitamin D	0.0µg	McCance & Widdowson 6th Edition
Vitamin E	0.2mg	McCance & Widdowson 6th Edition
Thiamin	0.0mg	McCance & Widdowson 6th Edition
Riboflavin	0.03mg	McCance & Widdowson 6th Edition
Niacin	0.0mg	McCance & Widdowson 6th Edition
Folic Acid	20µg	McCance & Widdowson 6th Edition
Biotin	1.0µg	McCance & Widdowson 6th Edition
Pantothentic Acid	0.0mg	McCance & Widdowson 6th Edition
Calcium	22mg	McCance & Widdowson 6th Edition
Phosphorus	23mg	McCance & Widdowson 6th Edition
Iron	0.7mg	McCance & Widdowson 6th Edition
Magnesium	12mg	McCance & Widdowson 6th Edition
Zinc	0.1mg	McCance & Widdowson 6th Edition
Iodine	0.0µg	McCance & Widdowson 6th Edition
Potassium	160mg	McCance & Widdowson 6th Edition

GMO DECLARATION

Does the product, or any of its ingredients contain any genetically modified material (whether viable or not)? ~~YES~~ / NO

Is the product or any of its ingredients not substantially equivalent as a consequence of the use of genetic modification? ~~YES~~ / NO

Is the product or any of its ingredients produced from, but not containing any genetically modified material? ~~YES~~ / NO

Have genetically modified organisms been used as processing aids or additives used in connection with the production of the food or any of its ingredients? ~~YES~~ / NO

Have genetically modified organisms been used to produce processing aids or additives but where such genetically modified organisms are not present in the processing aid as used in connection with the production of the food or any of its ingredients? ~~YES~~ / NO

Name: Gianluca Oberto Job Title: Technical Manager

Signature: Date: 1st May 2017

IRRADIATION POLICY

I confirm that the product supplied by Foodnet Limited under this specification has not undergone any irradiation treatment or process. I further confirm that no ingredient or processing aid used in conjunction with this product has undergone irradiation treatment.

Name: Gianluca Oberto Job Title: Technical Manager

Signature: Date: 1st May 2017

FOOD INTOLERANCE

Food Intolerance Data
Does the material supplied contain any of the following? (**NO**) Absent, (**YES**) Present

Allergen	NO / YES	Reason for presence if YES
Milk & Milk Derivatives	NO	
Egg & Egg Derivatives	NO	
Animal Products (*)	NO	
Fish/Shellfish/Crustations/Molluscs	NO	
Cereals (**)	NO	
Gluten	NO	
Yeast/Yeast Extract	NO	
Soya/Soya Derivatives	NO	
Fruit & Fruit Derivatives	YES	Strawberry 100%
Beef & Beef Products	NO	
Pork & Pork Products	NO	
Lamb & Lamb Products	NO	
Poultry & Poultry Products	NO	
Legumes	NO	
Peanuts	NO	
Sulphite >10ppm	NO	
MSG	NO	
BHA / BHT	NO	
Benzoates	NO	
Glutamates	NO	
Azo & Coal Tar Dyes	NO	
Added Colour	NO	
Added Flavour	NO	
Preservatives	NO	
Antioxidants	NO	
Added Salt	NO	
Nuts/Nut Oils	NO	
Caffeine	NO	
Sesame Products	NO	
Garlic	NO	
Poppy Seeds	NO	
Mustard	NO	
Celery / Celeriac	NO	
Lupins	NO	

*Including any product derived from slaughtered animals, e.g. gelatine, rennet
**Including wheat, corn, barley, rye, oats, etc.
Is the material suitable for:
Vegetarians? Y / ~~N~~ Halal? Y / ~~N~~ (Not Certified) Organic? ~~Y~~ / N
Vegans? Y / ~~N~~ Kosher? Y / ~~N~~ (Not Certified)

Please be aware the manufacturing sites we supply this item from may handle allergens in production. Procedures are in place to prevent cross-contamination.

FOOD ADDITIVES

E. Number	Name	In Which Ingredient	Function in Ingredient	Function in Final Product	% In Final Product
None					

PROCESS INFORMATION

PROCESS FLOW CHART*

*Note: this is a generic flow chart which does not refer to any specific production site.

STRAWBERRIES

Delivery → Q.C. Sampling
↓
De-stalk
↓
Inspection
↓
Freezing → -18ºC QA Check
↓
Inspection
↓
Grading
↓
Carton Fill → QA Check
↓
Check Weigh
↓
Metal Detection → QA Check
↓
Palletise
↓
Cold Storage → -23ºC
↓
Despatch → -18ºC

COSHH Data For Frozen Fruits

Treat as you would any frozen material i.e. if engaged in prolonged handling of the vegetables wear gloves.

Care should be used when lifting full cases of frozen vegetables.

There are no other perceived COSHH implications regarding the use of frozen vegetables.

THE CONTENTS OF THIS SPECIFICATION ARE CONFIDENTIAL TO FOODNET LTD AND THE CUSTOMER, AND MAY NOT BE DISCLOSED TO ANY OTHER PARTY.

Please check our website (www.foodnet.ltd.uk) for updates on this spec.

Signed on behalf of Foodnet Ltd:-

Name: Gianluca Oberto Job Title: Technical Manager

Signature: Date: 1st May 2017

Signed on behalf of the Customer:-

Name: Job Title:

Signature: Date:

Issues & Amendments

Issue N°	Amend. N°	Date	Amendments	Compiled by
1	1	01/02/2016	New entry	G. Oberto
2	1	01/05/2017	Defect tolerances – minimum ref samples; Reviewed BB and Traceability info. Added Storage Conditions. Reviewed Food Intolerance table, Flow Chart and Amendment table.	G. Oberto