



Head Office: The Old Grammar School, 3-7 Market Square, Amersham, Bucks. HP7 0DF
Tel: (44) 1494 434600 Email: foodnettechnical@foodnet.ltd.uk

Technical Specification		
Product: Sweetcorn Kernal	Last Update: 31/01/2020	Product Code: SWE013

PACK SIZE 1 x 10kg; 1 x 20kg;

ORIGIN: Hungary / Spain / Poland / China

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 Sweetcorn 100% Declare as: Sweetcorn
(*Zea mays*)

PROCESSING Sweetcorn cobs are delivered fresh to the factory and each load is sampled and assessed for grade, foreign material and physical defects. The cobs are then de-husked, inspected, and washed before the kernels are cut from the cob. The kernels are then cleaned, blanched, cooled, inspected, frozen and filled into cartons. Each pallet of frozen sweetcorn is sampled and assessed against specification. The pallets are then labelled and transferred to the cold store at -23°C until required for packing.

PACKING During packing, the sweetcorn is inspected before weighing and filling into blue poly lined cartons. The cartons are Best Before and Production date coded, checkweighed and metal detected, palletised and stretch wrapped before being returned to store at -18°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

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DEFECT TOLERANCES

Per 1000g

Clumps	4% w/w
Foreign Matter	Nil
E.V.M.	1

Per 200g

Major Blemish	2
Minor Blemish	6
Black Eyes	10
Pale Silks	3
Pulled Kernels (with attached stem)	8
Damaged Kernels	5% w/w
Miscut	10% w/w

DEFINITIONS OF DEFECTS

Clumps

A clump is defined as five or more kernels welded together which cannot be readily separated without causing damage to the kernels.

Foreign Material

This includes any material not derived from the sweetcorn plant, nor defined as EVM. Examples of foreign matter include insects, pieces of insect, wood, glass, stones, metal, snails, slugs etc. unacceptable.

EVM

This includes any vegetable matter other than sweetcorn kernels which is derived from the sweet corn plant, such as husk or leaf larger in area than 6mm diameter, dark silks longer than 12mm, pieces of unattached cob greater than an equivalent circle of 3mm in diameter.

Major Blemish

Discoloured or blemished areas, other than black eyes, equal to or greater than an equivalent circle of 3mm in diameter, either as a single blemish or as an aggregate of blemishes.

Minor Blemish

Discoloured or blemished areas, other than black eyes, less than an equivalent circle of 3mm in diameter.

Black Eyes

Sweetcorn kernels which exhibit a complete or partial dark ring on the cut surface of the kernel.

Pale Silks

Pale silks longer than 12mm.

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Pulled Kernels (with attached stem)

Corn kernels which have not been cut, but have been pulled from the cob, and retain some stem tissue.

Damaged Kernels

Kernels which are crushed and/or have loose skins.

Miscut

Kernels which are cut either very high up the kernel or low down the kernel. This includes pulled kernels without attached stem.

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

ORGANOLEPSIS (Carried out on a thawed sample.)

COLOUR

Uniform, bright, characteristic pale yellow, yellow or golden yellow.

FLAVOUR

Full, natural and characteristic sweetcorn flavour.

TEXTURE

Kernal contents are opaque and viscous, they tend to “pop” or “squirt” when chewed, and have reasonably tender skins (pericarps) which can be chewed easily.



Average sample

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MICROBIOLOGICAL

Organism	Target	Maximum
<i>TVC @ 30°C</i>	1×10^5	5×10^5
<i>Total Coliforms</i>	1×10^2	1×10^3
<i>E. coli</i>	Nil	1×10^2
<i>Listeria mono</i>	Absent in 25g	1×10^2
<i>Salmonella</i>	Absent in 25g	Absent in 25g

ANALYTICAL Product shall be blanched to give a negative peroxidase reaction (guaiacol test) between 50 and 60 seconds.

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. Minimum BB date on delivery: 6 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.

SACKS Blue food grade polythene liner of a minimum thickness of 110µm.

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NUTRITIONAL INFORMATION

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

100g of uncooked sweet corn typically contains: -

Parameter	Value / 100g	Methodology
Energy - kcal	98	McCance & Widdowson 6 th Edition
Energy - kJ	415	McCance & Widdowson 6 th Edition
Moisture	76.0g	McCance & Widdowson 6 th Edition
Carbohydrate	17.0g	McCance & Widdowson 6 th Edition
- as sugars	2.0g	McCance & Widdowson 6 th Edition
- as polyols	0.0g	McCance & Widdowson 6 th Edition
- as starch	14.6g	McCance & Widdowson 6 th Edition
Fat	1.8g	McCance & Widdowson 6 th Edition
- as saturates	0.2g	McCance & Widdowson 6 th Edition
- as mono unsaturates	0.8g	McCance & Widdowson 6 th Edition
- as poly unsaturates	0.7g	McCance & Widdowson 6 th Edition
Protein	3.4g	McCance & Widdowson 6 th Edition
Fibre	1.5g	McCance & Widdowson 6 th Edition
Sodium	1mg	McCance & Widdowson 6 th Edition
Cholesterol	0g	McCance & Widdowson 6 th Edition
Vitamin A	16µg	McCance & Widdowson 6 th Edition
Vitamin B ₆	0.15mg	McCance & Widdowson 6 th Edition
Vitamin B ₁₂	0µg	McCance & Widdowson 6 th Edition
Vitamin C	8.0mg	McCance & Widdowson 6 th Edition
Vitamin D	0µg	McCance & Widdowson 6 th Edition
Vitamin E	0.69mg	McCance & Widdowson 6 th Edition
Thiamin	0.16mg	McCance & Widdowson 6 th Edition
Riboflavin	0.05mg	McCance & Widdowson 6 th Edition
Niacin	1.9mg	McCance & Widdowson 6 th Edition
Folic Acid	41µg	McCance & Widdowson 6 th Edition
Biotin	0.0µg	McCance & Widdowson 6 th Edition
Pantothenic Acid	0.73mg	McCance & Widdowson 6 th Edition
Calcium	3.0mg	McCance & Widdowson 6 th Edition
Phosphorus	91mg	McCance & Widdowson 6 th Edition
Iron	0.7mg	McCance & Widdowson 6 th Edition
Magnesium	37mg	McCance & Widdowson 6 th Edition
Zinc	0.4mg	McCance & Widdowson 6 th Edition
Iodine	0µg	McCance & Widdowson 6 th Edition
Potassium	260mg	McCance & Widdowson 6 th Edition

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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: 31st January 2020

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: 31st January 2020

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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/Crustaceans/Molluscs	NO			
Cereals (**)	YES	Sweetcorn 100%		
Gluten	NO			
Yeast/Yeast Extract	NO			
Soya/Soya Derivatives	NO			
Fruit & Fruit Derivatives	NO			
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/Celeryiac	NO			
Lupins	NO			
*Including any product derived from slaughtered animals, e.g. gelatine, rennet				
**Including wheat, corn, barley, rye, oats, etc.				
<u>Please be aware the manufacturing sites we supply this item from may handle allergens in production. Procedures are in place to prevent cross-contamination.</u>				
Is this product Suitable for:				
Vegans	Yes (Not certified)	Vegetarians	Yes	Organic
Halal	Yes (Not certified)	Kosher	Yes (Not certified)	

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FOOD ADDITIVES

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

COSHH Data

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 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.

Signed on behalf of Foodnet Ltd:

Name: Gianluca Oberto

Job Title: Technical Manager

Signature: 

Date: 31st January 2020

Signed on behalf of the Customer:

Name:

Job Title:

Signature:

Date:

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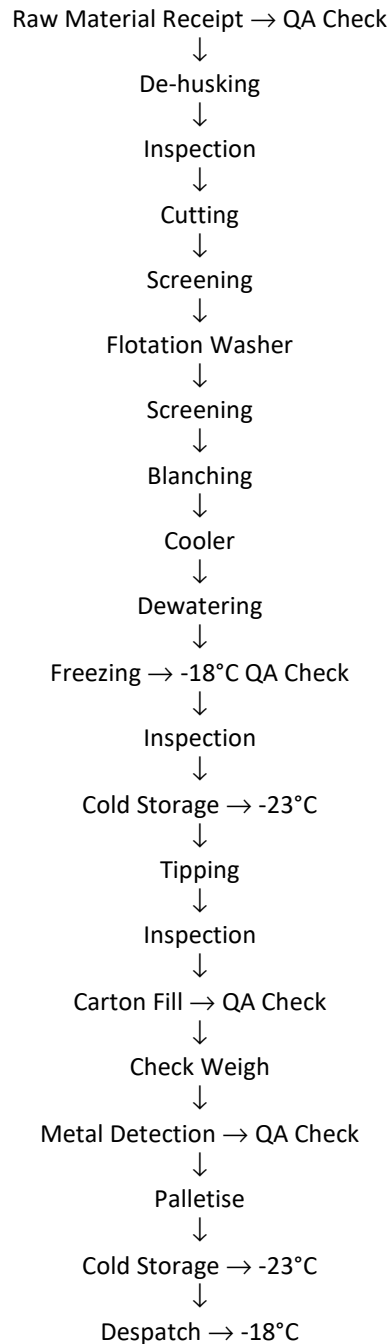
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PROCESS INFORMATION

PROCESS FLOW CHART*

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

SWEET CORN KERNAL



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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
3	1	31/01/2020	3 Year update – general revision	G. Oberto

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