



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: Diced Fennel 10MM	Last Update: 31/01/2020	Product Code: FEN001

PACK SIZE 1 x 10kg;

ORIGIN: Belgium / The Netherlands / Spain

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 Fennel 100% Declare as: Fennel
(*Foeniculum vulgare*)

PROCESSING Fennel is harvested, trimmed, delivered to the factory. Each load is sampled and assessed for foreign material and physical defects. The load is then washed, diced, blanched, cooled, frozen and filled into bulk palletainers. Frozen fennel is sampled and assessed against specification. The palletainers are then labelled and transferred to the cold store, where they are stored at -18°C until required for packing.

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

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	5% w/w
Foreign Material	Nil
EVM	1

Per 500g

Major Blemish	6
Minor Blemish	12
Oxidation	15
Badly Cut (>20mm)	10
Undersize (<7mm)	15% w/w

DEFINITIONS OF DEFECTS

Clumps

These are where three or more dice are frozen together which cannot be separated without causing damage to the dice.

Foreign Material

This includes any material not derived from the plant such as insects, pieces of insects, wood, glass, stones, metal, sand, grit, plastic or any other material which will render the product unacceptable.

Extraneous Vegetable Matter (EVM)

Vegetable material derived from the fennel plant other than the bulb e.g. pieces of leaf etc.
Vegetable material not from the fennel plant will be counted as Foreign material.

Major Blemish

This includes fennel dice that are blemished to the extent that the area affected is greater than 6mm in diameter, either as a single blemish or an aggregate of blemishes on the same dice.

Minor Blemish

This includes fennel dice that are blemished to the extent that the area affected is between 2mm and 6mm in diameter, either as a single blemish or an aggregate of blemishes on the same dice. Blemishes less than 2mm in diameter shall be ignored.

Oxidation

This includes pieces with oxidation: Pieces that have a dark brown colour due to the oxidation.

Badly Cut

This includes any pieces which have not been clearly separated or which are more than twice the nominal size in any dimension.

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Undersize

This includes pieces which are less than 7mm in any dimension.

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

Characteristic creamy white up to light green.

FLAVOUR

Characteristic anise-like flavour.

TEXTURE

Slightly firm.



Average sample

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MICROBIOLOGICAL

Organism	Target	Maximum
<i>TVC @ 30°C</i>	1×10^5	1.5×10^6
<i>Total Coliforms</i>	1×10^3	1×10^4
<i>E. coli</i>	$<1 \times 10^1$	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 trace positive peroxidase reaction (guaiacol test) between 60 and 90 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.

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NUTRITIONAL INFORMATION

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

100g of uncooked fennel typically contains: -

Parameter	Value / 100g	Methodology
Energy - kcal	12	McCance & Widdowson 6 th Edition
Energy - kJ	50	McCance & Widdowson 6 th Edition
Moisture	94.2g	McCance & Widdowson 6 th Edition
Carbohydrate	1.8g	McCance & Widdowson 6 th Edition
- as sugars	1.7g	McCance & Widdowson 6 th Edition
- as polyols	Trace	McCance & Widdowson 6 th Edition
- as starch	0.1g	McCance & Widdowson 6 th Edition
Fat	0.2g	McCance & Widdowson 6 th Edition
- as saturates	Trace	McCance & Widdowson 6 th Edition
- as mono unsaturates	Trace	McCance & Widdowson 6 th Edition
- as poly unsaturates	Trace	McCance & Widdowson 6 th Edition
Protein	0.9g	McCance & Widdowson 6 th Edition
Fibre	2.4g	McCance & Widdowson 6 th Edition
Sodium	11mg	McCance & Widdowson 6 th Edition
Vitamin A	0.0µg	McCance & Widdowson 6 th Edition
Vitamin B ₆	0.06mg	McCance & Widdowson 6 th Edition
Vitamin B ₁₂	0µg	McCance & Widdowson 6 th Edition
Vitamin C	5mg	McCance & Widdowson 6 th Edition
Vitamin D	0.0µg	McCance & Widdowson 6 th Edition
Vitamin E	0.0mg	McCance & Widdowson 6 th Edition
Thiamin	0.06mg	McCance & Widdowson 6 th Edition
Riboflavin	0.01mg	McCance & Widdowson 6 th Edition
Niacin	0.6mg	McCance & Widdowson 6 th Edition
Folic Acid	42µg	McCance & Widdowson 6 th Edition
Biotin	0.0µg	McCance & Widdowson 6 th Edition
Pantothenic Acid	0.0mg	McCance & Widdowson 6 th Edition
Calcium	24mg	McCance & Widdowson 6 th Edition
Phosphorus	26mg	McCance & Widdowson 6 th Edition
Iron	0.3mg	McCance & Widdowson 6 th Edition
Magnesium	8mg	McCance & Widdowson 6 th Edition
Zinc	0.5mg	McCance & Widdowson 6 th Edition
Iodine	0µg	McCance & Widdowson 6 th Edition
Potassium	440mg	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 (**)	NO			
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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PROCESS INFORMATION

PROCESS FLOW CHART*

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

DICED FENNEL

Raw Material Receipt → QC Check



Washing



Dicing



Inspection



Blanching



Cooling



Dewatering



Freezing → T < -18°C QC check



Cold Storage



Inspection



Weighing



Carton Fill → QC Check



Check Weigh



Metal Detection → QA Check



Palletise



Cold Storage → -18°C



Despatch → -18°C

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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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