

A man wearing a heavy, dark winter jacket with a fur-lined hood and goggles on his forehead is smiling. He is holding a golden-brown croissant in his gloved hand. The background is a snowy, mountainous landscape under a clear blue sky.

RECIPES AND PROCESSES

BEYOND
THE FROZEN
CHALLENGE

BEYOND THE FROZEN CHALLENGE

Beyond the Frozen Challenge is a fantastic journey about how inspiration and shared passion can stretch the boundaries of the frozen bakery world.

The purpose of Puratos with this initiative is to use our passion for frozen bakery to benefit the business of our customers.



A shared passion



Puratos proposes workshops to share experiences and knowledge with you: unveil the future of frozen bakery and identify the central role of innovation, reflect upon the latest consumer trends and technology developments and tackle industry hot topics such as sustainability and transparency.



Empowering outperformance



Together with our research, equipment and other partners, Puratos is driven by a passion to outperform, to innovate and to push the limits of possibility.

Through the Beyond the Frozen Challenge initiative, people from every part of the world join us to share their perspectives on the future of frozen bakery goods, in a spirit of encouragement and collaboration.

Together with our customers, we believe that:

Every challenge can be turned
into an opportunity.

Strong together

As a global team on a mission for excellence, we pride ourselves on being your reliable partners in innovation. Let's continue to work with courage and team spirit, turning technologies and experiences around the world into new ways to improve your business.

In this booklet, discover some bakery recipes developed with Puratos latest frozen bakery ingredients, innovative processes and cutting-edge foodpairing associations.

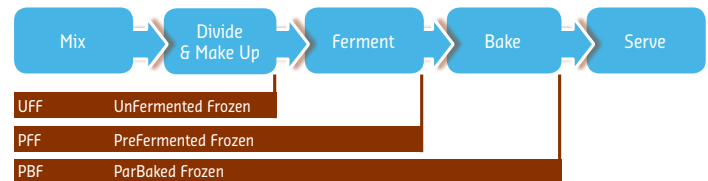


Your Industry Pioneer

When Puratos launched the first Kimo improver in the late 1970's, they were the first bakery ingredient company to offer dedicated improvers to tackle the needs of frozen dough producers. For more than 35 years, Puratos has led the way to **better solutions for frozen dough and bread processes**.

And still today, the eagerness to find the best solution to the ever-evolving challenges faced by the frozen bakery industry continues to drive Puratos technologists to **stretch the classic boundaries of research**.

Puratos frozen bakery solutions combine know-how in improver technologies, recipes and process parameters to offer you the **most convenient answer** to your freezing challenges and staying in line with the increasing consumer demand to **fresh products at any time of the day**:



UN-FERMENTED solutions

Still requires being thawed, proofed and baked at point of sales.

PRE-FERMENTED solutions

Just requires thawing and baking at the point of point of sales.

PARBAKED solutions

Requires a second bake at the point of point of sales.

Kimo, Quick Step and Double Bake improvers will increase the dough tolerance and help prevent typical defects from the freezing process, allowing an optimal freezer shelf-life and final bread quality.

Foodpairing and Breadpairing

Foodpairing is a source of inspiration that allows chefs, bartenders and others in the food industry to create new combinations of ingredients for dishes or drinks. Foodpairing is not based on intuition or existing recipes, but on science, to provide an objective overview of possible pairings.

The basis of Foodpairing lies in scientific flavour analysis. Its principle is that foods can be combined when they share major flavour components. The wonderful feature of Foodpairing is that you don't have to understand these complicated scientific analyses to use it.



Breadpairing is a specific form of Foodpairing. Breadpairing can be used to create breads and sandwiches based on the scientific flavour analysis of breads and their ingredients. It results in easily understandable, structured visualisations of all the resulting possible pairings.

The breads and sandwiches suggested in this recipe booklet are all results of this Breadpairing inspiration.



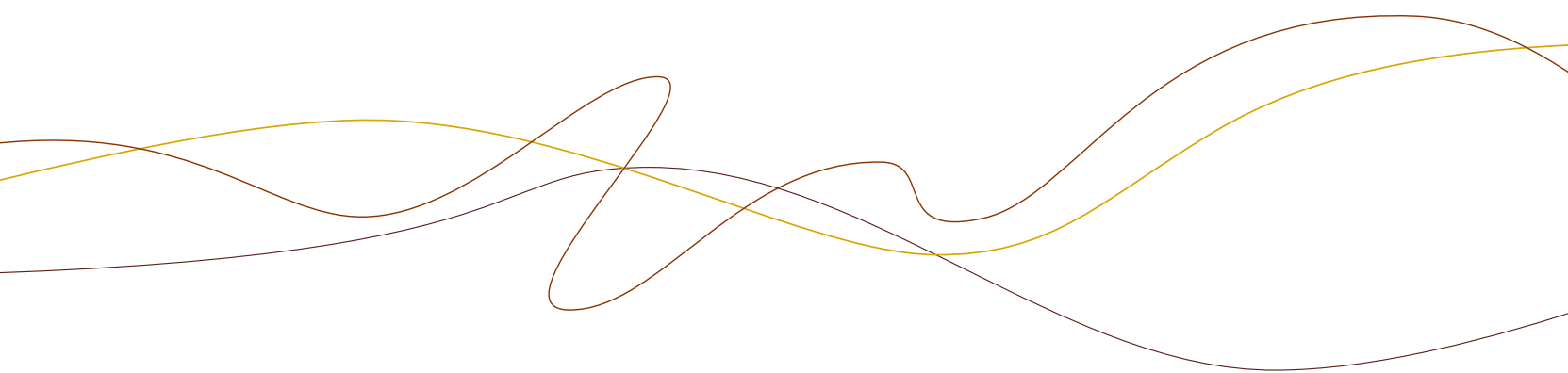


BEYOND
THE FROZEN
CHALLENGE



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Filling:

Amaranth & Carrot Puree / Smoked Duck Fillet

Fig & Gruyere Cheese Mini-Baguette

Ingredients

	%
Flour	100
Water	60
O-tentic Durum	4
Salt	1.8
Dried chopped figs	10
Grated Gruyere cheese	12

Process with the parbaked frozen technology

Mixing	3 + 5 min – dough temperature 25° C
Bulk proof	20 min
Dividing & rounding	40 g
Intermediate proofing	20 min
Forming	mini baguette on couche
Proofing	28° C / 78% RH – 45/50 min
Decoration	flour and 2 incisions
Baking - direct on deck	top: 210° C / bottom: 190° C – 9 min – 0,1 L steam
Cooling	ambient temperature until 30° C core temperature
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake-off	230° C – 7 min – 0,1 L steam

Pumpkin Piccolo

Filling:

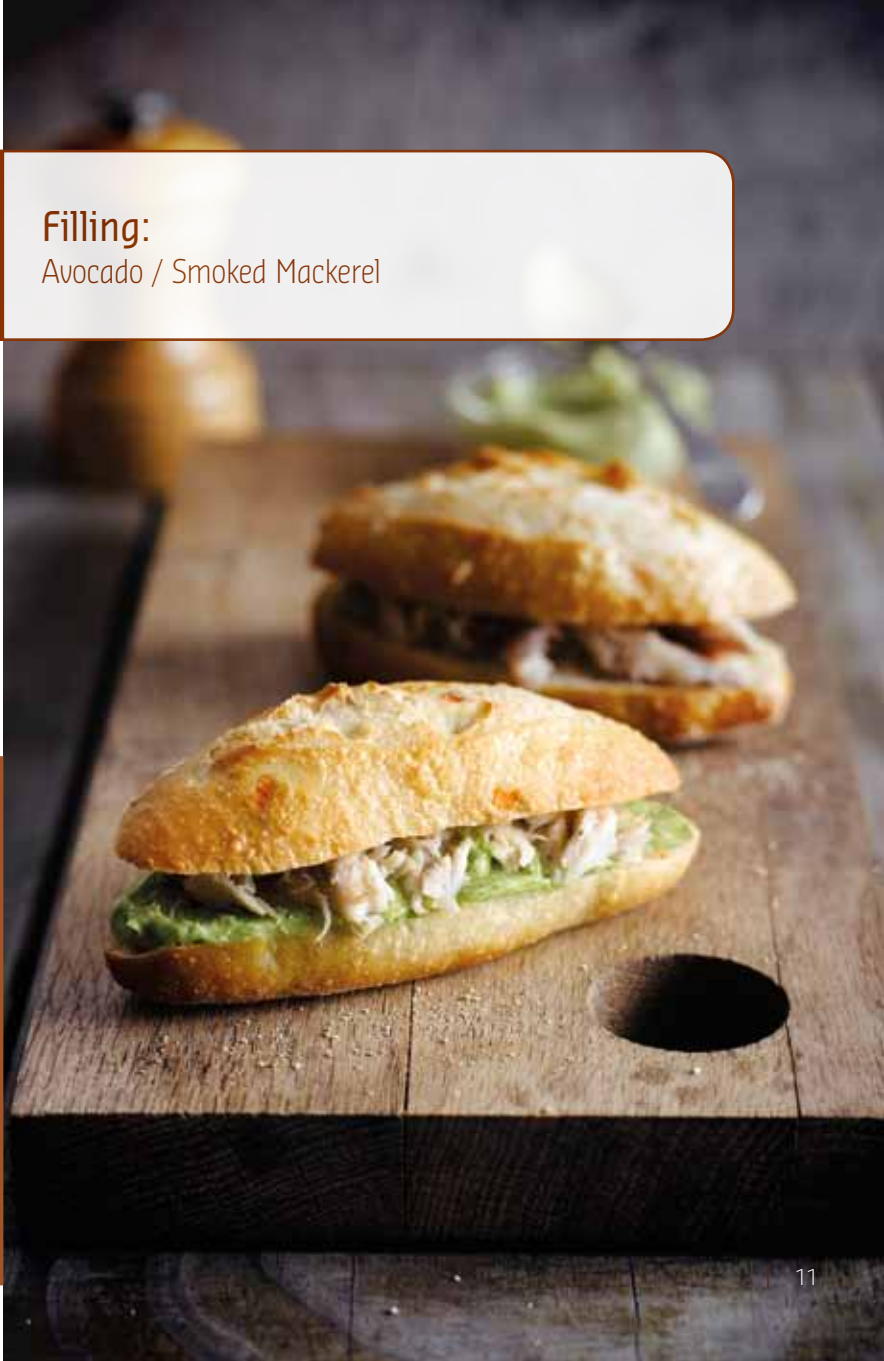
Avocado / Smoked Mackerel

Ingredients

	%
Flour	100
Water	57
O-tentic Durum	4
Salt	1.8
Sapore Fidelio	5
Pumpkin	5

Process with the parbaked frozen technology

Mixing	3 + 5 min – dough temperature 25° C
Bulk proof	20 min
Dividing & rounding	40 g
Intermediate proofing	20 min
Forming	Piccolo
Proofing	28° C / 78% RH – 75 min
Decoration	flour and 1 incision
Baking	top: 200° C / bottom: 220 – 12 min – 0,1 L steam
Cooling	ambient temperature until 30° C core temperature
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake-off	230° C – 7 min – 0,1 L steam



Filling:

Peanut Butter / Hot Chili Sauce /
Spring Onion / Cilantro

Cheese & Apple Bread

Ingredients

Ingredients	%
Flour	100
Water	60
O-tentic Durum	4
Salt	1.8
Emmental cheese cubes	22
Apple cubes	22

Process with the parbaked frozen technology

Mixing	3 + 5 min – dough temperature 25° C
Bulk proof	20 min
Dividing & rounding	800 g
Intermediate proofing	20 min
Forming	elongated (cylindre shape) +/- 30cm
Proofing	on couche – 28° C / 78% RH – 70 min
Decoration	incisions
Baking	top: 220° C / bottom: 200° C – 28 min – 0,1 L steam
Cooling	ambient temperature – until 30° C core temperature
Blast freezing	-40° C for ca 45 min
Frozen storage	-18° C
Thawing	ambient temperature – ca 20 min
Bake-off	230° C – 15 min – 0,1 L steam
Slicing	Slices 12 mm

Roquefort, Walnut & Raisin Roll

Filling:

Porto Mayonnaise / Burger of Mealworms

Ingredients	%
Flour	100
Water	60
O-tentic Durum	4
Salt	1,8
Roquefort cheese	12
Dried currants	12
Walnuts	12

Process with the parbaked frozen technology

Mixing	3 + 5 min – dough temperature 25°C
Bulk proof	20 min
Dividing & rounding	45 g
Intermediate proofing	20 min
Stamping	3 divisions
Proofing	on couche - Upside down 28°C / 78% RH – 40 to 60 min
Baking - direct on deck	top: 210° C / bottom: 190° C – 11 min – 0,1L steam
Cooling	ambient temperature until 30° C core temperature
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake-off	230° C – 7 min – 0,1 L steam



Filling:

Berrisimo / Yoghurt

White Chocolate & Apricot Roll

Ingredients

	%
Flour	100
Water	62
O-tentic Durum	4
Salt	1,8
Belcolade White Selection chocolate pepites	18
Coarse sugar	18
Dried apricot pieces	18

Process with the parbaked frozen technology

Mixing	3 + 5 min – dough temperature 25°C
Bulk proof	20 min
Dividing & rounding	45 g
Intermediate proofing	20 min
Forming	Margareta - rounded with olive oil
Proofing	on couche upside down – 28°C / 78% RH – 90 min
Decoration	no
Baking	top: 210° C – bottom: 190° C – 13 min – 0,1 L steam
Cooling	ambient temperature until 30° C core temperature
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake-off	230° C – 7 min – 0,1 L steam

Black Pepper, Basil & Olive Oil Roll

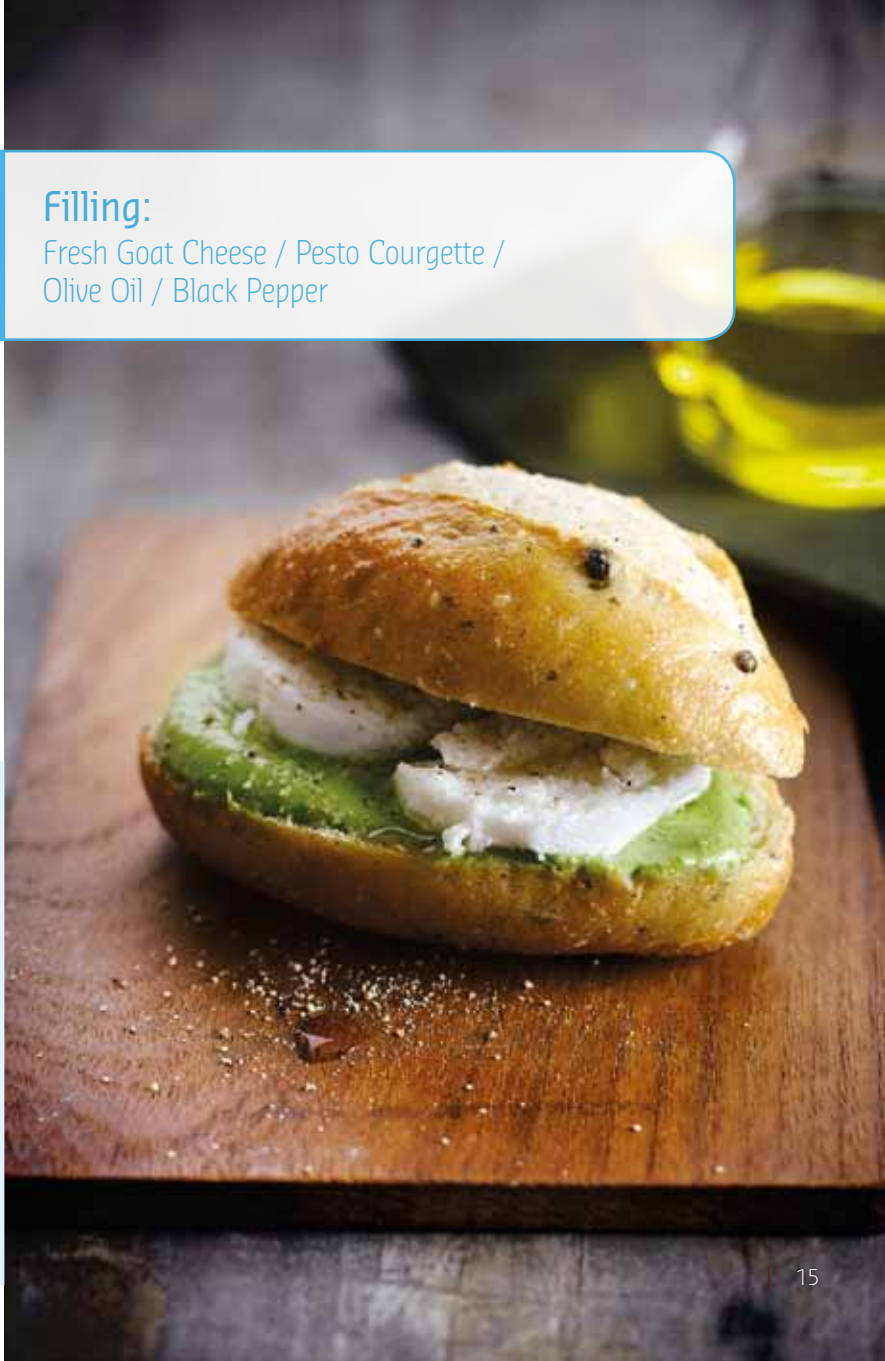
Filling:

Fresh Goat Cheese / Pesto Courgette /
Olive Oil / Black Pepper

Ingredients	%
Flour	100
Water	52
O-tentic Durum	4
Quick Step Crispy	2,5
Salt	1,8
Black pepper	1,5
Dried basil	0,5
Olive oil	5

Process with the prefermented frozen technology

Mixing	3 + 5 min – dough temperature 25°C
Bulk proof	20 min
Dividing & rounding	70 g
Intermediate proofing	20 min – 150 g
Forming	Piccolo
Proofing	28°C / 78% RH – 40 to 50 min
Decoration	one incision
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake	top: 210° C / bottom: 220° C – 18 min – 0,2 L steam



Filling:

Pumpkin Hummus / Roasted Almond Slices /
Baked Chicken



Curry & Raisin Ciabatta

Ingredients	%
Flour	100
Water	67
O-tentic Durum	4
Quick Step Crispy	2,5
Salt	1,8
Yellow curry powder	2
Dried currants	31

Process with the prefermented frozen technology

Mixing	3 + 5 min – dough temperature 25° C
Bulk proof	30 min
Sheeting	2,5 cm
Cutting	6 x 13 cm – 150 g
Intermediate proofing	20 min
Proofing	28° C / 78% RH – 40 to 50 min
Decoration	one incision
Blast freezing	-40° C – until a -10° C core temperature
Frozen storage	-18° C
Thawing	ambient temperature – ca 20 min
Bake	top: 210° C / bottom: 220° C – 20 min – 0,2 L steam

Sun-dried Tomato & Basil Baguette

Filling:

San Daniele Ham / Grilled Eggplant /
Butter Mixed with Fresh Grounded Coffee

Ingredients

	%
Flour	100
Water	67
O-tentic Durum	4
Quick Step Crispy	2,5
Salt	1,8
Sun dried tomatoes	20
Dried basil	1

Process with the prefermented frozen technology

Mixing	3 + 5 min – dough temperature 25° C
Bulk proof	30 min
Dividing	150 g
Intermediate proofing	10-15 min – 150 g
Forming	23-25 cm
Proofing	28° C / 78% RH – 40 to 50 min
Decoration	one incision
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 20 min
Bake	top: 210° C / bottom: 220° C – 20 min – 0,2 L steam



Filling:

Carrot & Apple Salad / Baked (Smoked) Sausage

Caraway, Orange Juice & Balsamic Cream Crescent Roll

Ingredients

	%
Flour	100
Water	50
O-tentic Durum	4
Soft Grain Multigrain	15
Salt	1,8
Balsamic cream	3
Orange juice	15
Caraway seeds	1

Process with the parbaked frozen technology

Mixing	3 + 5 min – dough temperature 25°C
Bulk proof	5 min
Lamination	3 x 3 – without lamination fat
Relaxation of the dough	30 min – -18° C
Final lamination	3 to 4 mm
Dividing	70 g
Forming	croissant
Proofing	28°C / 78% RH – 45-60 min
Decoration	egg wash
Baking	top: 220° C – bottom: 180° C – 12 min – 0,1 L steam
Cooling	ambient temperature until 30° C core temperature
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake-off	230° C – 7 min – 0,1 L steam

Belcolade Noir Collection Ecuador Chocolate Piccolo

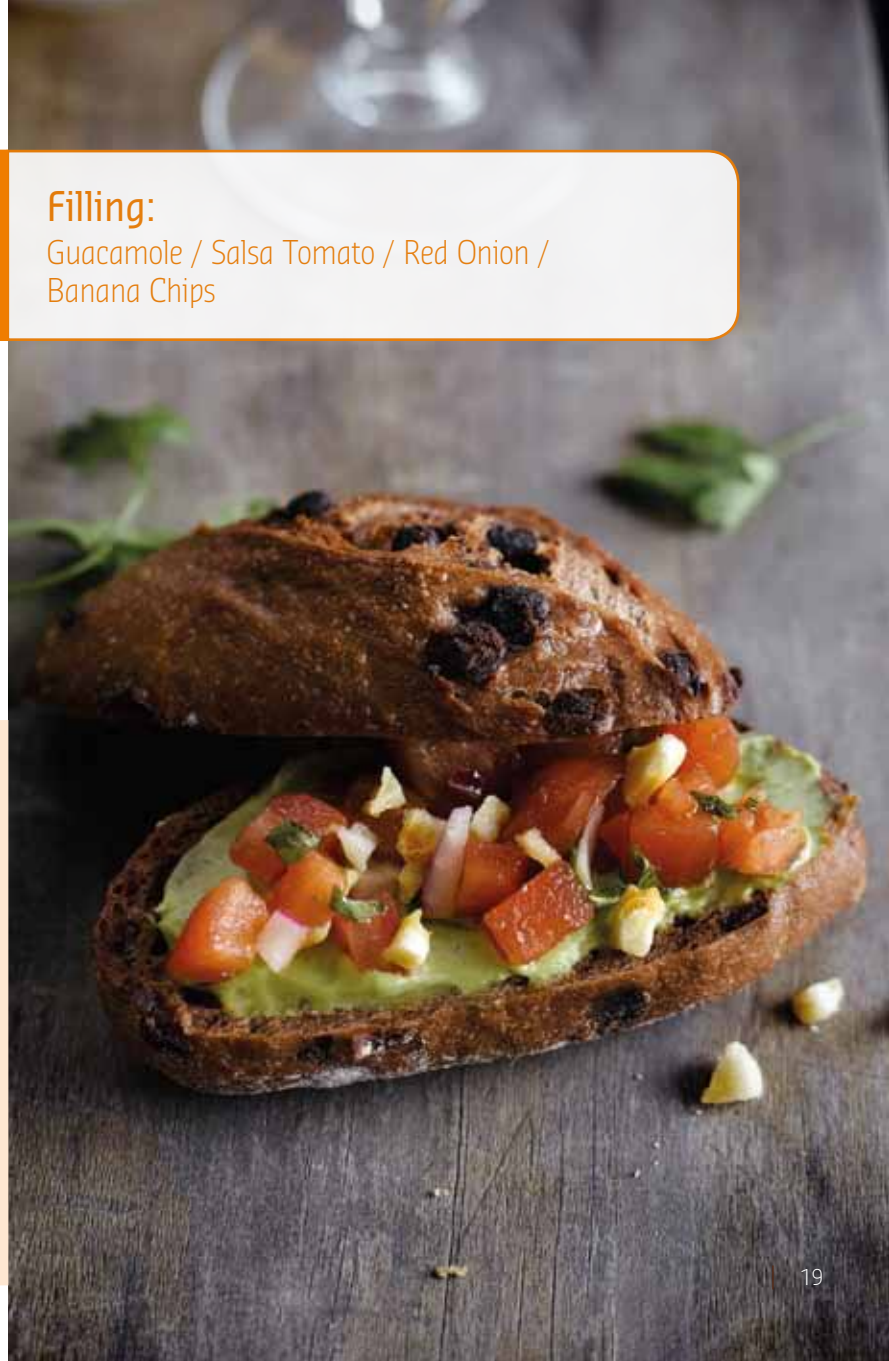
Filling:

Guacamole / Salsa Tomato / Red Onion /
Banana Chips

Ingredients	%
Flour	100
Cacao powder	4
Water	63
O-tentic Durum	4
Salt	1,8
Belcolade Noir collection Ecuador 72	15
Margarine	5

Process with the parbaked frozen technology

Mixing	3 + 5 min – dough temperature 25°C
Bulk proof	20 min
Dividing & rounding	2100 g
Intermediate proofing	20 min
Dividing	70 gr
Forming	Piccolo
Proofing	baguette trays 28°C / 78% RH – 40-50 min
Baking	top: 200° C / bottom: 220° C – 12 min – 0,1L steam
Cooling	ambient temperature until 30° C core temperature
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake-off	230° C – 7 min – 0,1 L steam



Filling:

Shrimp / Tête De Veau / Green Herb Mustard

French Mustard & Artichoke Rectangles



Ingredients	%
Flour	100
Water	54
O-tentic Durum	4
Sapore Carmen	5
Salt	1,8
French mustard (old fashion)	3
Canned drained artichoke	5
Margarine	5

Process with the parbaked frozen technology

Mixing	3+5 – dough temp 24°C
Bulk proof	5 min
Sheeting	2,5 cm
Dividing	70 gr – rectangle
Proofing	28°C / 78% RH - 45-60 min
Decoration	one incision
Baking - direct on deck	top: 200° C / bottom: 180° C – 12 min – 0,1L steam
Cooling	ambient temperature until 30° C core temperature
Blast freezing	-40° C – until a -10° C core temperature.
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Bake-off	230° C – 7 min – 0,1 L steam

Parbaked Croissant

Ingredients

	%
Flour	100
Water	60
Fresh yeast	5
Sugar	10
Salt	2
Double Bake Croissant VC	3

Lamination fat

	%
Mimetic	30% on flour weight

Process with the parbaked frozen technology

Mixing	4 + 4 min – dough temp 16-18° C
Lamination	as usual (e.g. 27 layers)
Proofing	28° C / 70% RH – ca 60 min
Baking	170° C – ca 14 min
Vacuum cooling	3 min until 30° C core temperature
Glaze	with Harmony RTU prebake
Blast freezing	-40° C to a core temperature of -10° C
Frozen storage	-18° C
Thawing	ambient temperature – 0-5 min
Bake-off	220° C – 4 min



Filling:

Butter Mixed with Dried Cepes Powder / Camembert Slices



Beetroot, Orange & Walnut Bread

Ingredients - orange	%
Flour	100
Water	53
Fresh yeast	3
Kimo Long Acti-Plus	2
Oil	2
Sapore Alcina	5
Classic orange	5
Orange zeste	3
Salt	2

Ingredients - walnuts	%
Flour	100
Water	51
Fresh yeast	3
Kimo Long Acti-Plus	2
Oil	2
Sapore Alcina	5
Summum noix	10
Roasted walnuts	8
Salt	2

Ingredients - beetroot	%
Flour	100
Beetroot juice	53
Fresh yeast	3
Kimo Long Acti-Plus	2
Oil	2
Sapore Alcina	5
Salt	2

Process with the unfermented frozen technology

Mixing	3 + 5 min - dough temperature 22°C
Bulk proof	none
Dividing	roll out on 2,5 mm and cut stripes
Blast freezing	-30°C – until a -7°C core temperature.
Storage	-18° C
Composing	as desired
Defrosting	ambient temp – ca 60 min
Proofing	28° C / 78% RH - 60 minutes
Baking	top: 210° C / bottom: 210° C – 17 min – 0,1L steam

Pumpkin, Chocolate & Cranberry bread

Ingredients - pumpkin

	%
Flour	100
Pumpkin juice	53
Fresh yeast	3
Kimo Long Acti-Plus	2
Oil	2
Sapore Alcina	5
Salt	2

Ingredients - chocolate

	%
Flour	100
Water	53
Fresh yeast	3
Kimo Long Acti-Plus	2
Oil	2
Sapore Alcina	5
Belcolade K10	15
Salt	2

Process with the unfermented frozen technology

Mixing	3 + 5 min - dough temperature 22°C
Bulk proof	none
Dividing	roll out on 2,5 mm and cut stripes
Blast freezing	-30°C – until a -7°C core temperature
Storage	-18° C
Composing	as desired
Defrosting	ambient temp – ca 60 min
Proofing	28° C / 78% RH - 60 minutes
Baking	top: 210° C / bottom: 210° C – 17 min – 0,1L steam

Ingredients - cranberry

	%
Flour	100
Water	53
Fresh yeast	3
Kimo Long Acti-Plus	2
Oil	2
Sapore Alcina	5
Dried cranberry	15
Salt	2

Filling:

Mayonnaise Mixed with a Truffle Paste / Roast Beef Slices





Filling: Baked Chicken Filet 300gr +
Curry Powder 30gr + Fresh Apple 300gr.
All-in Robot Coupe to grind in paste.

Filling: Parmesan Powder 100gr + Toasted Pinenuts
300gr + Fresh Basil 30gr + Fresh Cream 50gr.
All-in Robot Coupe to grind in paste.

Chicken, Apple & Curry Sate Stick

Process with the prefermented frozen technology

Mixing	4 + 4 min - dough temperature 22°C
Bulk fermentation	30 min at -20° C covered with plastic sheet
Make Up	Give 2 single folds and place back at -20°C for 30 min. Give another single fold and roll out at 2 mm. Spread the filling on the centre third of the dough. Fold one side over and spread again the filling. Fold over the other part. Cut cubes of 2 x 2cm.
Proofing	28° C / 78% RH – ca 60 min
Blast freezing	-40°C – until a -10°C core temperature
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Baking	210° C – 10 min – 0,1 L steam

Parmesan, Basil & Pinenut Sate Stick

Ingredients

	%
Flour	100
Water +/-	45
Fresh yeast	5
Salt	2
Sugar	10
Milk powder	3
Eggs	10
Mimetic	5
Kimo Long Acti-Plus	2

Lamination fat

	%
Mimetic	30% on flour weight

Batter: Flour 300 gr + Eggs 350 gr + Fresh Cream 100 gr
+ Water 200 gr + Butter 50 gr + Anis Seed 30 gr

Orange & Anis Bread Bite

Ingredients

Ingredients	%
Flour	100
Water +/-	35
Yeast Fresh	6
Salt	1,5
Sugar	10
Milk powder	3
Eggs	10
Orange peel grated	2
Mimetic	15
Quick Step Crispy	3
Classic orange	5

Process with the prefermented frozen technology

Mixing Spiral	3 + 3 min - Add Mimetic - 3 + 4 min
Dough Temperature	28° C
Bulk fermentation	10 min
Scale	350 g
Intermediate proof	10 min
Make Up	Shape as baguettes and cut disques of 15 g
Proofing	28° C / 78% RH - ca 60 min
Blast freezing	-40°C - until a -10°C core temperature
Frozen storage	-18° C
Thawing	ambient temperature - ca 10 min
Frying	180° C - ca 2 min

Apple & Calvados Triangle

Batter: Flour 300 gr + Eggs 350 gr + Fresh Cream 100 gr + Calvados 300 gr + Butter 50 gr – **Apple filling:** Topfil Mini Apple Cubes 100% + Cremyvit Powder 10%

Ingredients	%
Flour	100
Water +/-	35
Yeast Fresh	6
Salt	1,5
Sugar	10
Milk powder	3
Eggs	10
Mimetic	15
Quick Step Crispy	3

Process with the prefermented frozen technology

Mixing Spiral	3 + 3 min - Add Mimetic - 3 + 4 min
Dough Temperature	28° C
Bulk fermentation	10 min
Scale	20 g
Intermediate proof	10 min
Make Up	Roll out, pipe the filling and fold as triangle
Final Fermentation	28° C / 78% RH – ca 60 min
Blast freezing	-40°C - until a -10°C core temperature
Frozen storage	-18° C
Thawing	ambient temperature – ca 10 min
Frying	180° C – ca 2 min



Filling:

Rhubarb Jam / Cream Cheese / Granola

Smiley Bun

Ingredients

	%
Flour	100
Water	25
Egg	20
Salt	2
Sugar	8
Yeast	4
Mimetic	15
Quick Step Crispy	3

Process with the prefermented frozen technology

Mixing Spiral	3 + 3 min - Add Mimetic - 3 + 4 min
Dough Temperature	24° C
Bulk fermentation	Flatten to 10 mm and put at -18°C
Make Up	Sheet Down to 5 mm and cut discs of 8 cm diameter
Proofing	28° C / 78% RH - ca 60 min
Blast freezing	-40°C - until a -10°C core temperature
Decoration before baking	Drill the eyes and sculpt the mouth. Inject chocolate filling for eyes and red velvet for mouth. Thaw 15 minutes.
Frozen storage	-18° C
Thawing	ambient temperature - ca 15 min
Baking	240° C - ca 9 min

Raw Cucumber Croque

Filling:

for each piece of about 90g: 2 Palets of Belcolade Blanc Chocolate and 10g of Cucumber Skin

Ingredients

	%
Flour	100
Cucumber Juice	52
Salt	1,8
Sugar	5
Yeast	3
Olive Oil	5
Taragon	2
Quick Step Crispy	3

Process with the prefermented frozen technology

Mixing Spiral	3 + 3 min - Add Mimetic - 3 + 4 min
Dough Temperature	24° C
Bulk fermentation	Flatten to 10mm and put at -18°C
Make Up	Sheet Down to 3.5 mm and cut rectangles of 8 x 16 cm. Fill and seal with water.
Proofing	28° C / 78% RH - ca 50 min
Blast freezing	-40° C - until a -10° C core temperature
Frozen storage	-18° C
Thawing	ambient temperature - ca 20 min
Baking	croque machine (8/10) - ca 3 min





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