

APPLICATIONS

GLUTEN-FREE



Pre-prepared formulas and specific gluten-free ingredients, discover our special lines for people with coeliac disease (gluten intolerant) and people who wish to eat gluten-free products.

EUROGERM Expertise

Gluten-free solutions and ingredients for all of your gluten-free bread making goals.

- Create all-new gluten-free finished products with our line of bread mixes
-> **Product solutions**
- Build your gluten-free recipe by improving the dough rheology, optimising the texture and preservation of your finished products
-> **Technological solutions**
- Add taste and visual options
-> **Sensory solutions**

| PRODUCT SOLUTIONS | SENSORY SOLUTIONS | TECHNOLOGICAL SOLUTIONS |
|--|--|---|
| <p>PLAISANT GLUTEN-FREE LINE:</p> <ul style="list-style-type: none"> - ALL-FREE - MULTI-RECETTES - PAIN DE MIE - BAGUETTE - BAGUETTE CAMPAGNE - BUNS - MULTI-GRAINES <p>TRANCHES DE VIE</p> | <p>TASTE-COLOUR</p> <ul style="list-style-type: none"> - SOLUTEC COULEUR AMBREE - LEFAP RGC GF - PARFEN CACAO GF - PARFEN MAÏS GF <p>TOPPING</p> <ul style="list-style-type: none"> - GRAINS - FRUIT | <p>BASES</p> <ul style="list-style-type: none"> - SOLUTEC GF TOAST BREAD - SOLUTEC GF BAGUETTE & BUN - SOLUTEC GF MULTIGRAINES <p>INGREDIENTS</p> <ul style="list-style-type: none"> - Thickening agents - Emulsifiers - Powdered yeast - Enzymes - Preservatives |
| <p>Formulation of a customised solution or a specific ingredients solution pursuant to your specifications</p> | | |

PRODUCT SOLUTIONS

- PLAISANT GLUTEN-FREE is a line of mixes used to make different bread products. Easy and practical, these pre-prepared mixes are used like conventional wheat flour, according to the predesigned charts.

| | APPLICATIONS | DOUGH CHARACTERISTICS | ADVANTAGES | VISUAL | |
|------------------------|--|--|---|--|--|
| PLAISANT GLUTEN-FREE | ALL-FREE | Bread baked in a mould without milk, lactose, eggs, soy or sesame seeds | Fluid Fermentation | Additive-free, spongy and nutritious | |
| | MULTI RECETTES | Bread, pie crust, pizza, cakes, crepes, sablés, donuts, confectioner's custard, béchamel sauce | Fluid / Variable fermentation crusts depending on the recipes | All-in-one mix Used like conventional flour | |
| | PAIN DE MIE | White bread "Specially spongy" | Fluid Expanding | Fresh and spongy texture Excellent | |
| | BAGUETTE | Baguette or pistolet shaped bread | Shapeable | Much like a traditional product | |
| | BAGUETTE CAMPAGNE | Baguette or pistolet shaped bread | Shapeable | Much like a traditional product | |
| | BUNS | Small buns | Shapeable | To make traditional-like hamburger buns | |
| | MULTI GRAINES | Sunflower, sesame, brown flax and millet seeds | Shapeable | Much like a traditional product, amber crust | |
| TRANCHES DE VIE | Bread, pie crust, pizza, cakes, crepes, sablés, donuts, confectioner's custard, béchamel sauce | Fluid / Variable fermentation crusts Depending on the recipes | All-in-one mix Used like conventional flour | | |

SENSORY SOLUTIONS

| - Taste-Colour | DOSAGE | CLAIM | ADVANTAGES | VISUAL |
|---------------------------------|--|---|---|--------|
| SOLUTE GF COULEUR AMBREE | 0.2% to 0.5% (of the weight of the powder) | Caramel colouring and gluten-free toasted flour mixture | Provides a brown crumb colour without modifying the organoleptic properties | |
| LEFAP RGC GF | Around 4% | Fermented rice flour and toasted carob germ flour mixture | Hides the off-notes associated with gluten-free formulas. Provides sweet brown butter notes | |
| PARFEN CACAO GF | Around 1 to 5% | Cocoa and toasted carob germ flour mixture | Provides a brown crumb colour and a light cocoa taste that combines well with the toasted | |
| PARFEN MAÏS GF | 2 to 5 % | Roasted corn flour | Provides a yellow crumb colour and a pleasant roasted grill and brown butter taste | |

Toppings (Your own customised ingredient mixes can be created)

| GRAINS | FRUIT |
|--|-------------------------------|
| Flax (organic) - Millet - Sunflower - Poppy - Sesame | Apricot (diced) - Fig (diced) |

TECHNOLOGICAL SOLUTIONS

- TECHNOLOGICAL INGREDIENTS for targeted action on the dough

| | CLAIM | FUNCTIONALITIES | | |
|-------------------|--------------------------------------|---|---|--|
| THICKENING AGENTS | SOLUTE GUAR GUM 50 | Guar gum (E412) | Enhances moisture | |
| | SOLUTE XANTHAN GUM 15F | Xanthan gum (E415) | Fosters water development and retention, enhances sponginess | |
| | SOLUTE HPMC GF | Hydroxypropyl Methylcellulose (E464) | Enables structuring of dough and crumb | |
| | SOLUTE CEL GUM 5F | Sodium carboxymethyl cellulose or Cellulose gum (E466) | Enhances moisture Fosters water retention | |
| | SOLUTE ALGINATE F600 | Alginate (E401) | Enhances moisture Thickens dough. Enhances viscosity and texture | |
| EMULSIFIERS | ADDIGERM PREGEL RIZ PLUS | Pregel rice flour | Adds cold crank viscosity in finished products. Enhances the texture and shelf life | |
| | SOLUTE DATA F190 (palm-based) | Diacetyl tartaric acid ester of mono- and diglycerides and fatty acid diglyceride (E472e) | Delays starch gelatinisation Enhances the volume of the finished product | |
| | SOLUTE SSL D560 (colza-based) | Sodium stearyl-2-lactylate (E481) | Enhances the crumb structure Enhances sponginess and limits staling | |
| EMULSIFIERS | SOLUTE MONO S900 (palm-based) | Fatty acid mono and diglycerides (E471) | Enhances the crumb structure Enhances sponginess and limits staling | |
| | BAKING POWDER | SOLUTE GF BAKING POWDER | Powdered yeast Raising agent E450, E500ii | Used in non-fermented doughs to raise and aerate the dough (cookies, donuts, cakes, muffins) |
| ENZYMES | ALPHASE AS 1500 GF | <i>Recommended dosage: 0.1 to 0.75%</i> | Enzymatic solution | For better melting Enhances the product shelf life |
| | ALPHASE AB GF 0155 | <i>Recommended dosage: around 1%</i> | Enzymatic solution | Adds moisture to the crumb Enhances the finished product shelf life |
| | ADDIGERM SOFT GF 0605 | <i>Dosage : around 4 %</i> | Enzyme and emulsifier complex | Enhances sponginess and the finished product shelf life |
| PRESERVATIVE | SOLUTE ANTIMOLD GF | <i>Dosage : around 1 %</i> | Preservative combination (E202 and E282) | Guarantees microbiological preservation of the finished product |

- TECHNOLOGICAL BASES for rheology actions and working with the dough, the quality of the finished product (appearance, texture)

| | APPLICATION | DOSAGE | FUNCTIONALITIES |
|-------------------------------------|-------------------|--|--|
| SOLUTE GF TOAST BREAD | White bread | 16% (of the weight of the recommended recipe) | Easier dough expansion and poaching Enhances development, provides a melting and moist texture |
| SOLUTE GF BAGUETTE & BUN | Baguette and Bun | 9 % (of the weight of the recommended recipe) | Easier mechanical processing and dough expansion Enhances tolerance and slitting |
| SOLUTE GF MULTIGRAINES | Multi-grain bread | 13 % (of the weight of the recommended recipe) | Easier mechanical processing and dough expansion Enhances tolerance, volume and slitting |

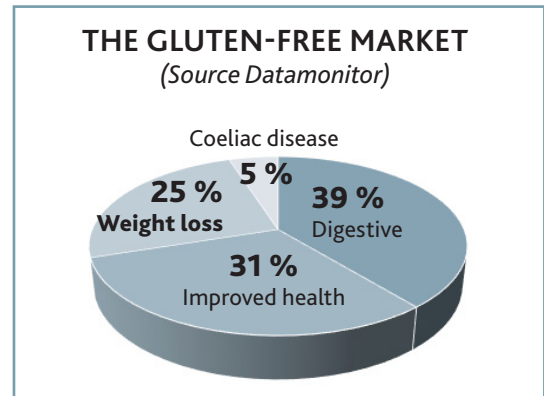
GLUTEN-FREE a growing market: why?

Gluten-free products have been developed over the last twenty years to meet the needs of people with coeliac disease (1 to 2% of the French population has been diagnosed with it and must eliminate gluten from their diets).

More recently, other consumers have turned towards this niche market which doesn't stop rising. The main reasons, which are sometimes irrational, leading consumers towards "gluten-free" go beyond intolerance issues (see the box).

According to Research & Markets, the world gluten-free product market should reach \$6.84 billion by 2019; in other words, +10% growth per year!

Pursuant to regulations in effect in Europe and the USA, a gluten-free product must have a gluten content of less than 20 mg/kg (EC Regulation no. 41/2009).



Therefore, professionals must offer consumers products which meet their demands. The considerable progress made in formulations makes it possible to produce gluten-free products nowadays with excellent taste characteristics much like traditional wheat flour-based products.

Depending on the desired result, the solutions offered by EUROGERM make it possible to work

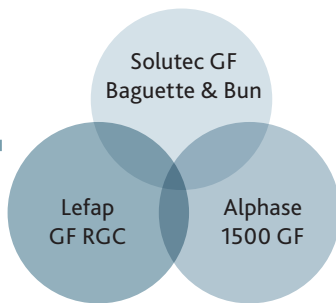
TECHNOLOGICAL:
enhances the texture depending on the application

PRESERVATION:
helps the product maintain spongy properties longer

TASTE-COLOUR:
hides parasitic taste notes, offers crumb colour, crunchiness...

EXAMPLE

Your gluten-free starch based recipe



Baguette shapeable with sweet brown butter notes preserves well



CONSIDERING
OUR FUTURE