
MANUAL OF
Fibers
IN PASTRY MAKING
JORDI BORDAS X Sosa

Editorial

Gastronomy is changing and consumers have new demands. They are looking to reduce their sugar and fat intake, reduce or completely cut out animal proteins and make the smallest possible impact on the environment. As this transformation unfolds, pastry professionals face new technical challenges.

At Sosa Ingredients, we work every day to provide innovative ingredients and solutions for gastronomy professionals' technical challenges. It was through this work that we identified a new fiber with intriguing properties: Flax fiber, Flaxfiber.

Flaxfiber confirms that fibers are here to stay, and that they represent a whole new avenue for gastronomy to explore.

So that we can continue contributing to the gastronomy world with our new ingredients, we have worked with Jordi Bordas, one of pastry R&D's pioneering centers and among the first to explore fibers' uses.

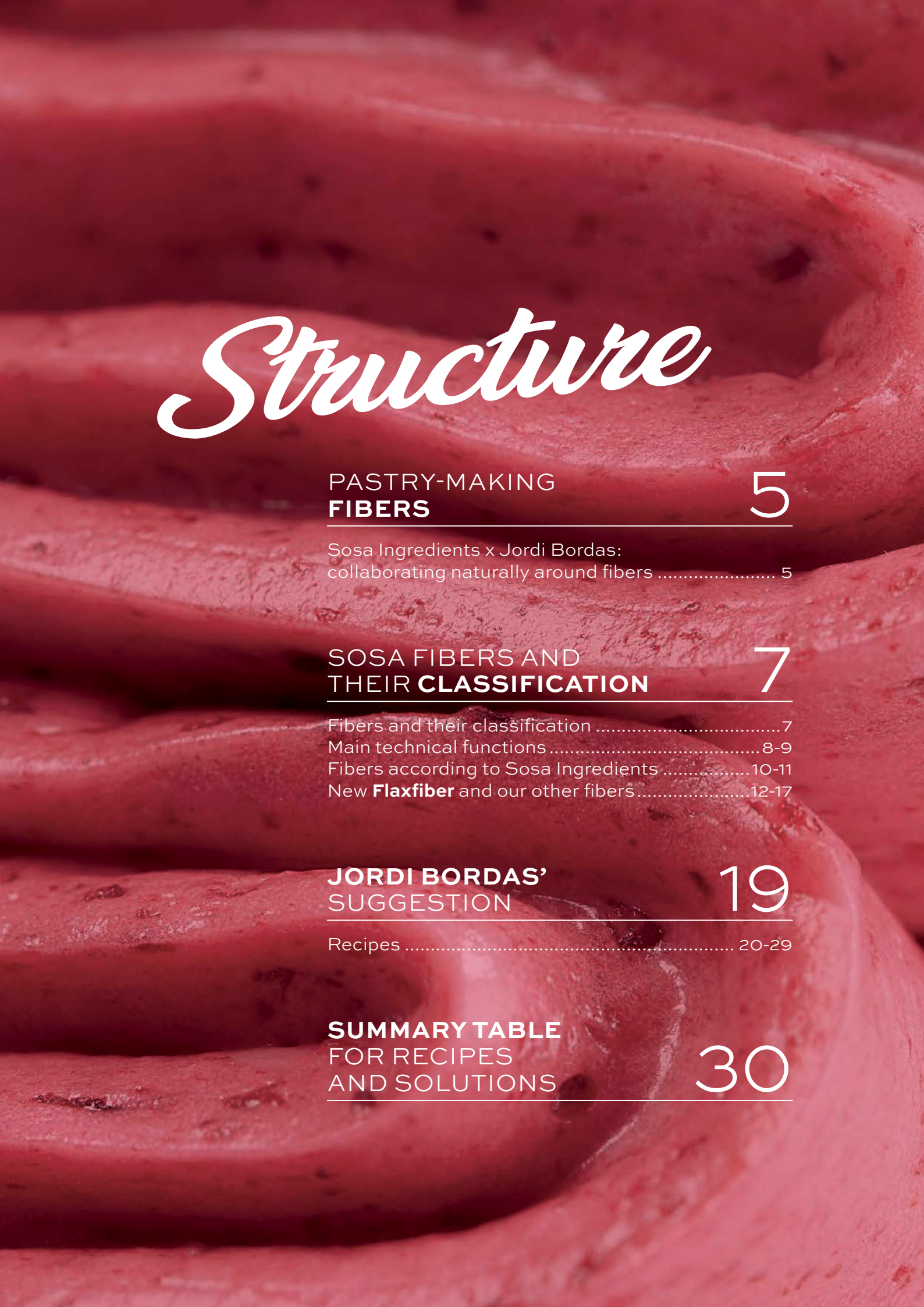
Over the last year, both teams have worked intensively to demonstrate that incorporating fiber into recipes improves textures, reduces the need for sugars and fats and improves dishes' flavour at the same time. This was how this handbook for using fibers in pastry came into being, and we hope it will serve as a guide as you reformulate your recipes from now on.

About jordibordas

After winning the **Pastry World Cup** in 2011, Jordi Bordas founded the pastry school in Viladecans (Barcelona) with the aim of passing on all his experience and knowledge to new generations of pastry chefs. With his **B · Concept**, Jordi revolutionized the pastry world by demonstrating that **healthier, lighter and tastier pastry** is not only possible, but meets a major need expressed by consumers.

About Sosa

Sosa Ingredients is one of the leading manufacturers and suppliers of premium quality ingredients for pastry and gastronomy. It was founded in Catalonia in 1967.
Sosa Ingredients is committed to using its technological know-how to constantly innovate and improve its products, all with the aim of making gastronomy more ethical and accessible.



Structure

THE KEY INGREDIENT IN PASTRIES' FUTURE

As pastry professionals, we need to reinvent the way we work so that we align ourselves with consumers' current needs by creating **lighter, more nutritious products** *than traditional pastries.* **Fiber is undoubtedly one of the key ingredients of the future** *as it allows us to create delicious, stable recipes with less sugar and fat.*

JORDI BORDAS
World pastry champion 2011. Founder of the Jordi Bordas Training and Research Centre

The R&D team at Sosa Ingredients and the Jordi Bordas Pastry School and Innovation Center have worked together to research and better understand fibers and their different uses in pastry.

During these endeavors, we have been able to test fibers with different origins (some of which have never been used before in pastry) and at the same time reinforce our knowledge about fibers already in use.

We have discovered a new fiber, which we believe will become very important in the pastry-making industry: **Flaxfiber**, a fiber from flax that helps us to thicken, emulsify and stabilise our creations. We have been amazed to discover everything that this new ingredient brings us.

Because of their wide range of origins, purposes and benefits, **we consider fibers a new category of pastry ingredient in their own right**, and they will be great allies to professionals facing the challenges of making a more ethical kind of pastry with less sugar, less fat, more texture and more flavour.

This practical guide collates the results of all this collaborative work, which we hope will be of help to the pastry-making industry.

Fibers are an ingredient that, until recently, had gone unnoticed by the food industry, but this is changing very quickly as fibers with incredible texturizing properties start to emerge on the market.

Thanks to our collaboration with Sosa we were able to discover Flaxfiber, a fiber made from flax with some very interesting pastry-making applications.

ADRIANNA JAWORSKA
R&D Director at the Jordi Bordas Training and Research Centre

During our continuous research into gastronomy solutions, we have discovered the huge potential that fibers offer as a technical ingredient and culinary texturizing agent.

Collaborating with Jordi Bordas' team has helped us to understand the solutions fibers offer the pastry industry.

OSCAR ALBIÑANA
R&D Manager at Sosa Ingredients

Pastry professionals face great challenges as consumer demands evolve at a fast pace. It is becoming increasingly necessary for culinary professionals to understand the role ingredients play in a recipe.

This explanatory work, and the launch of a new fiber, Flaxfiber, is in line with our mission at Sosa Ingredients: to make technical knowledge more accessible and to propose innovative solutions.

LILIBETH RIVAS
Marketing Manager at Sosa Ingredients

FIBERS AND THEIR CLASSIFICATION

Dietary fiber is the structural part of plants, and it's found in all foods derived from plant products.

It's the edible part of plants that our digestive enzymes can't break down, hence why fiber isn't digested in the same way as sugars and starches and reaches the gut intact, acting as a prebiotic.

Fibers can be divided into two main groups according to their composition.

Soluble Fibers :
They are found in legumes, some cereals and fruit. They can hold a lot of water and are able to form viscous gels. They decrease and slow fat and sugar absorption from food.

Insoluble Fibers :
They are mostly found in foods like wheat bran, whole grains, some vegetables and grains. They don't absorb much water and their main effect on the body is to clean the walls of the intestine.

Fiber is naturally present in our foods, but we can also add it to our recipes and products to improve their nutritional value.

According to the WHO, an adult should consume between 25 and 38g of fiber a day to maintain their health.

WHY ARE THEY USEFUL IN PASTRY-MAKING?

Pastry-making is a discipline that interweaves various different technical functions, each one of which is needed to create the right result.

It's difficult to imagine pastry-making without emulsions, and thickening and stabilising are also commonly required for better products and improved textures.

Traditionally, these functions have been covered by basic ingredients such as eggs, fats (butter and cream, for instance), sugars and so on.

Fibers provide a range of very interesting options that work instead of or help to enhance basic ingredients.

By using fibers, we can create better textured, lighter and healthier pastry, while highlighting flavours such as fruit or nuts which can sometimes be masked if we overuse ingredients like eggs, dairy products or sugars.

FIBERS AND THEIR MAIN TECHNICAL FUNCTIONS

Thicken

Thickening gives body to a liquid while increasing the viscosity and density of coulis, sauces, creams and crémeux, for example.

There are lots of ways to thicken preparations using binding elements such as gums, flours or starches, although it's also common to use eggs and fats, such as butter, or even evaporation techniques.

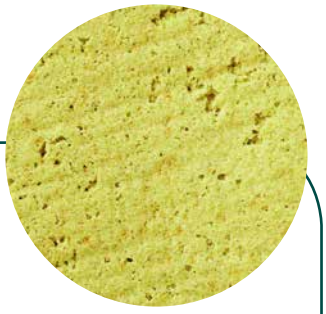
Fibers can fulfill this role. We recommend **Flaxfiber** first and foremost for its great ability to thicken liquids without needing heat or adding any colour or flavour.

Elasticate

When a preparation such as a bread dough is described as elastic, this means it's able to regain its shape once we stop pressing on its structure. This allows the dough to be stretched without breaking apart and helps trap gas during fermentation, increasing its volume.

It also prevents the dough from crumbling and helps preparations such as sponge cakes slice more cleanly.

The gluten in wheat flour is one of the key elasticating ingredients, but it can be substituted with **Psyllium**, a fiber which actually improves the kneading process.



Bind

Binding is a process that makes it possible to combine different ingredients together and to make doughs more compact. It's very frequently done in pastry-making to make doughs such as cookies or sponges, and to improve the texture and consistency of certain preparations that contain solids. Egg is one of the most commonly used binders.

Flaxfiber and **Psyllium** have characteristics that let them do the same thing.

Stabilise

Stabilisation is a process which allows us to preserve a product's look and texture for a longer period of time and improve how it reacts to being frozen and defrosted. For example, we might want to stop an ice cream from melting for as long as we can, make a meringue firmer for longer or help a mousse hold its shape as it defrosts.

Flaxfiber makes meringues, ice creams and creams stable and preserves textures during freezing and thawing.

Emulsify

Emulsions are a mixture in which the fats and water content have blended together perfectly. They play a very important technical role in pastry-making because they are used in most products, including creams, ice creams, sponges, and mousses. To make an emulsion, we need an ingredient with the right properties.

NaturEmul and **Flaxfiber** are both able to make emulsions.

Create a creamy mouthfeel

In pastry-making, fat adds creaminess and texture, and it also acts as a channel for flavour.

Pastry-making's most commonly used fats are butter, cream and egg yolk, although vegetable fats such as coconut fat, cocoa butter or shea butter are other possibilities.

With **inulin**, we can give any liquid preparation a creamy mouthfeel while reducing or even entirely removing fats from a product without losing any of its unctuousness or texture.

Solidify

The amount of solids in a recipe is very important. We can categorize solids into four families: sugars, flours (such as starches), fats and fibers.

Sugars play a sweetening and structuring role. Flours and starches provide thickness, structure and coagulation. Fats provide texture and creaminess.

Fibers such as **inulins** provide structure and varying degrees of creaminess. They are also a vital substitute for sugar, especially **Oligofruct**.

FIBERS ACCORDING TO SOSA INGREDIENTS

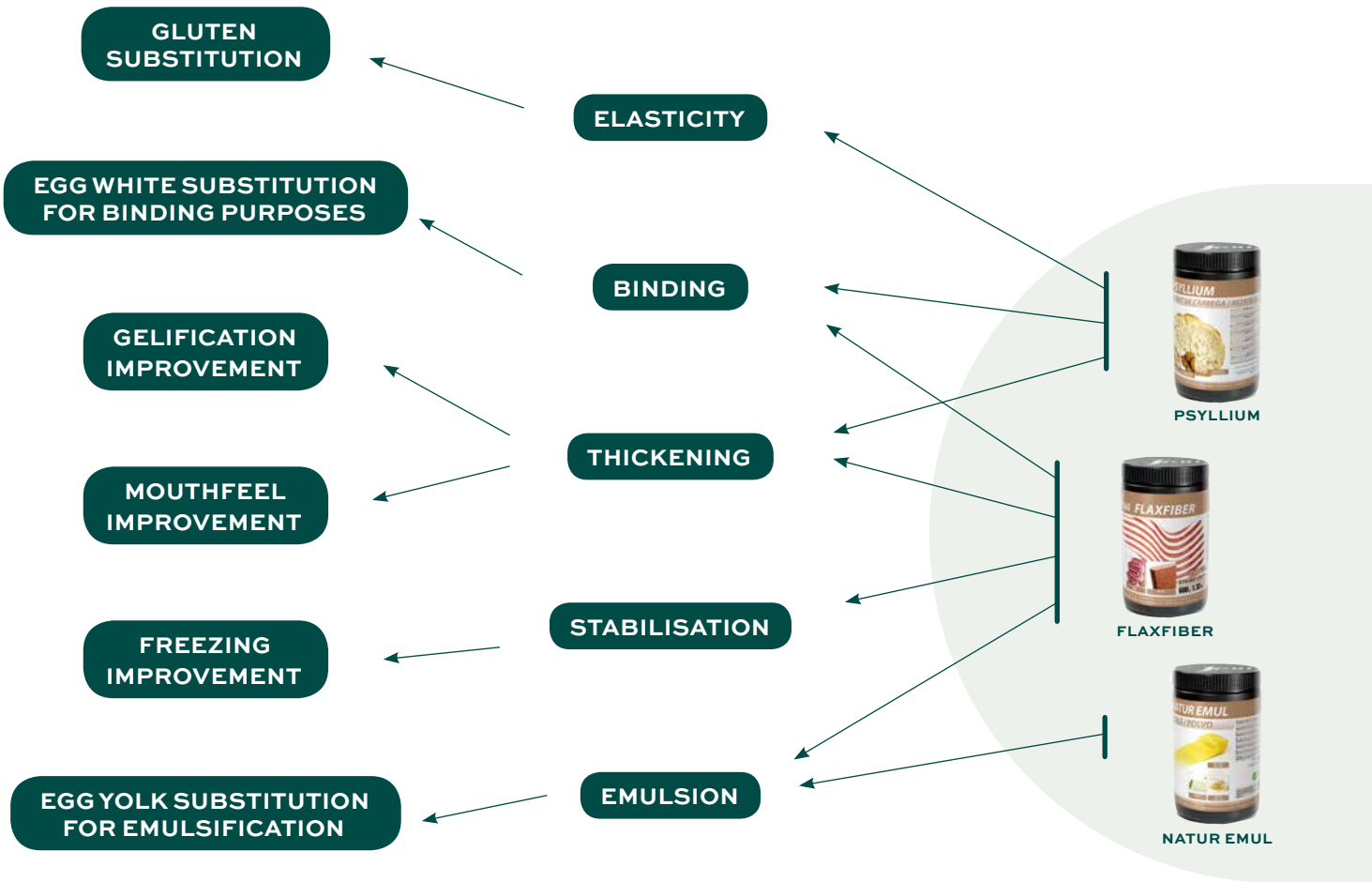
We classify our fibers into 2 groups – high performance fibers and bulking fibers – according to their technical roles. →

HIGH PERFOMANCE FIBERS

NATUR EMUL, PSYLLIUM, FLAXFIBER

These highly functional fibers perform remarkable technical roles even when used in low quantities (0.1 to 4%) because they are made of a combination of soluble and insoluble fibers.

They can be used to emulsify, thicken, stabilise, bind or add elasticity to preparations.



	Thickening	Stabilisation	Emulsion	Elasticity	Binding
Psyllium	🟠	🔴	🟠	🟢	🟢
Flaxfiber	🟢	🟢	🟢	🟠	🟠
Natur Emul	🟠	🔴	🟢	🔴	🔴

This classification takes into account the nature of the product in terms of the relationship between dosage, technical function and the solutions offered.

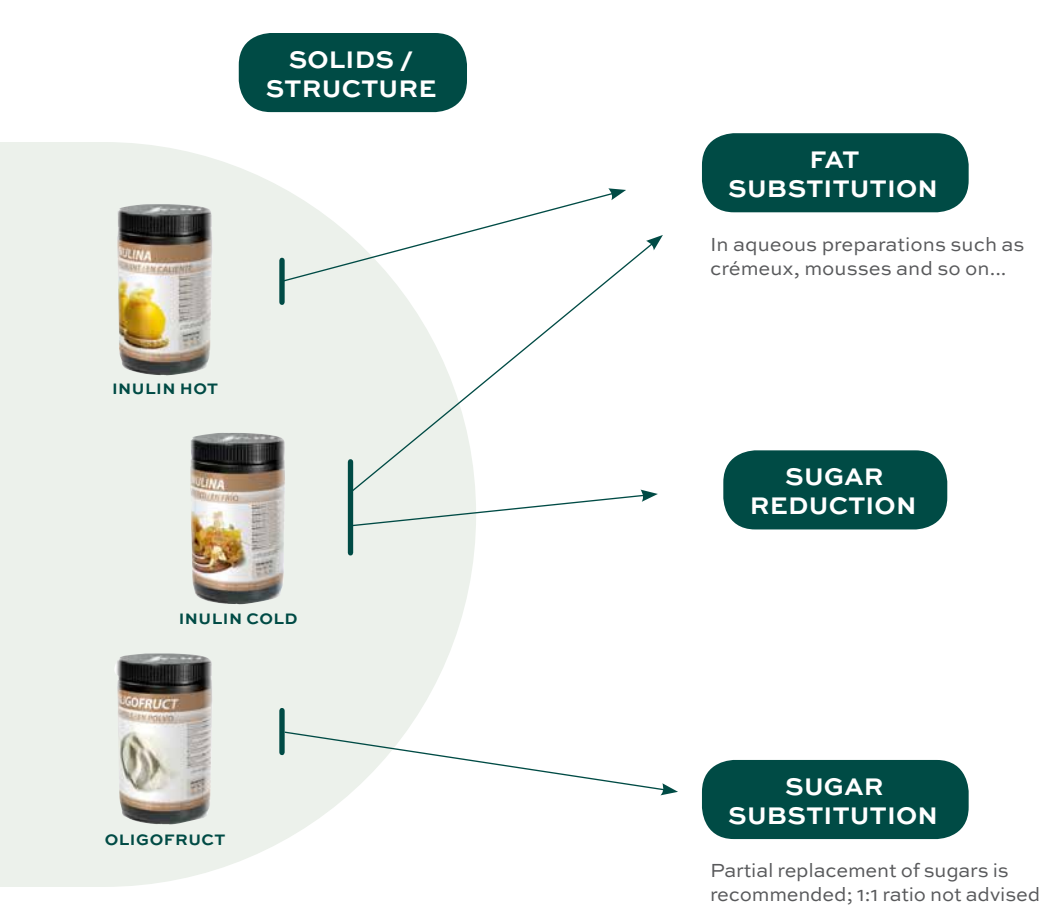
BULKING FIBERS

INULIN HOT, INULIN COLD, OLIGOFRUCT

These are soluble fibers whose structure is comparable to sugars and other bulking agents.

We can incorporate large quantities (up to 20%) into preparations to increase the proportion of solids such as sugars and fats or replace solids completely.

We get different levels of texture and sweetness depending on the bulking fiber we choose.



	ACP* (anti-crystallization power)	SP* (sweetening power)	Fat substitution	Sugar substitution
Inulin Hot	5%	0%	🟢	🔴
Inulin Cold	6%	10%	🟢	🟠
Oligofruct	45%	50%	🔴	🟢

* % compared to sucrose

OUR FIBERS

FLAXFIBER

Fiber from brown and golden flax seeds, from which the mucilage is extracted. Ideal for thickening sauces and coulis. It can be used to replace xanthan gum in a 1:2 ratio. It stands out for its thickening, stabilising and emulsifying properties.

ADVANTAGES

- 100% plant-based
- Listed as a fiber in the ingredients declaration (not considered an additive).
- Dissolves easily, even without heating
- Thickens without adding flavour or colour
- Increases products' creaminess
- Works in acidic preparations

DOSAGE

Between 0.1 and 4%

OTHER TECHNICAL CHARACTERISTICS

- Fiber content >76%
  - Soluble fiber >12%
  - Insoluble fiber >88%
- Withstands cooking and freezing

MAIN APPLICATIONS

Sauces and coulis: Thickener and emulsifier
0.1 - 4%

Mousse: Stabiliser and emulsifier
0.1 - 0.5%

Meringue: Stabiliser
0.1 - 0.4%

OTHER USES

It has a binding effect in **doughs and cookies**. In beverages such as cocoa drinks and fruit smoothies, it helps to stop solids separating and provides viscosity.

Tips for use

Very easy to use - mix with hot or cold liquid, depending on the quantity.

The first time we tried Flaxfiber, we were amazed by both its great thickening and stabilising abilities and its completely neutral taste. It can be used to thicken, emulsify and stabilise crémeux, ganaches or mousses, and even improve baked doughs' texture. It really is a great ingredient that will revolutionize the food industry. Plus, it's a clean-label product we can use to create all kinds of textures and meet market needs at the same time.

JORDI BORDAS

During our research into various fibers, we discovered Flaxfiber's unique texturizing abilities and the way it simultaneously combines three very important pastry-making functions (thickening, stabilisation and emulsification), without changing preparations' original flavour, colour and transparency.
It can even be used in alcoholic and acidic liquids, making it even more versatile.

OSCAR ALBIÑANA

NATUR EMUL

A fiber made from citrus fruit. It's mainly extracted from the citrus fruit peel usually discarded by juice manufacturers. It's ideal for emulsifying, as it can be used instead of egg yolk.

ADVANTAGES

- A 100% plant-based emulsifier
- Listed as a fiber in the ingredients declaration (not considered an additive).
- Can be used as a hot or cold emulsifier
- Improves products' texture after thawing
- Works in acidic preparations

DOSAGE

Between 0.5 and 2%

OTHER TECHNICAL CHARACTERISTICS

- Fiber content 68.2%
  - Soluble fiber 33.3%
  - Insoluble fiber 34.9%
- Withstands cooking and freezing

MAIN APPLICATIONS

Emulsified creams or sauces

Whipped doughs

Ice cream

Tips for use

Easily soluble/dispersible in hot and cold water and fats across a wide pH range.

Ideal for emulsifying glazes containing fat.

PSYLLIUM

Fiber from the husk of the Plantago Ovata plant. An ideal substitute for gluten's role in fermented doughs, such as gluten-free breads. Provides elasticity, fluffiness and texture.

ADVANTAGES

- Very good at absorbing liquids (1:40)
- Improves elasticity
- Highly stable when subjected to changes in temperature and pH.
- It can replace gluten in recipes such as bread and cake mixes
- Also has good binding and thickening capabilities

DOSAGE

Between 2 and 4%

OTHER TECHNICAL CHARACTERISTICS

- Fiber content >87.8%
  - Soluble fiber 29.2%
  - Insoluble fiber 58.5%
- Withstands cooking and freezing

MAIN APPLICATIONS

Gluten-free bread
Highly elastic doughs (such as pizza): 4%*.
Low-water doughs (such as bread):
2%* in relation to flour

Gluten-free sponge cake
1 - 2%

Bound mixes
2 - 4%

APPLICATION TIPS

Soluble/dispersible in both hot and cold water when stirred vigorously, across a wide pH range. In breads and doughs, add to the mix at the same time as solid ingredients (flours and starches.
Use as a replacement binder for egg in preparations such as cereal bars or meat substitutes in general (such as «veggie burgers» and nuggets).

Tips for use

How to make a 1:1 substitute for flour
Ideally, use a combination of the following proportions of gluten-free flour and starches:

- 35% rice flour
- 55% corn starch
- 10% tapioca starch

*Dosage in relation to the gluten-free flours used. For example, for 1 kg of gluten-free flours, use 20 to 40 g of Psyllium.

INULIN HOT

Inulin Hot is a fiber extracted from roots and tubers. It's used with hot liquids (140-160°F or 60-70°C) and needs stirring vigorously so it hydrates thoroughly.

It creates a creamy texture and adds solids when used as a total or partial replacement for fats and sugars in ice creams, creams, crémeux and ganaches.

ADVANTAGES

- 100% plant-based
- A great substitute for fat, providing a creamy mouthfeel while making products lighter.
- It is flavourless and colourless
- Improves thawed products' texture
- Works in acidic preparations
- Can be used in various products to replace some or all of the fats and solids such as sugars.

DOSAGE

Between 5 and 20%

MAIN APPLICATIONS

Creams and crémeux
5 - 20%*

Mousses
5 - 10%

Ice creams
5 - 15%

OTHER TECHNICAL CHARACTERISTICS

- Soluble fiber content: 96.7%
- It has an anti-crystallization power (ACP) of 5% and a sweetening power (SP) of 0% in relation to sucrose (standard sugar).
- It is heat-reversible; when heated above 35-40% it begins to lose its texture, like fats in general.

Tips for use

Remember that you will need to increase the amount of liquid, depending on which fats you are replacing (as fats are partly liquid).

Butter: 15% liquid

Cream: 65% liquid

Water or other liquids can be used as a substitute.

APPLICATION TIPS

Soluble/dispersible in liquids when agitated vigorously. It is advisable to heat the mixture to 120-160°F (50-70°C) to ensure it dissolves completely. Once this has been done, cool the mixture to 40°F (5°C) for at least 2 hours so that it hydrates.

*If you're looking to boost products' creaminess without changing your recipes, we recommend a quantity of around 5% to 10%. If you want to replace some or all of the fat in a recipe (butter or cream, for example), we recommend using a higher proportion of between 10% and 20%.

INULIN COLD

Inulin Cold is a fiber extracted from roots and tubers. It can be used with hot or cold liquids and needs to be stirred vigorously.

It creates a creamy texture, allowing you to add solids and reduce sugar and fat in preparations such as meringues, mousses, ice creams and sorbets, creams, crémeux and ganaches.

ADVANTAGES

- 100% plant-based
- Adds creaminess
- Reduces sugar
- It is flavourless and colourless
- Improves thawed products' texture
- Works in acidic preparations

DOSAGE

Between 5 and 20%

MAIN APPLICATIONS

Fully or partially replaces solids such as sugars in various preparations while providing a creamy texture. Ideal for sorbets because it dissolves easily when cold, so fresh fruit loses none of its flavour.

Meringues
5 - 10%

Mousses
5 - 10%

Ice creams and sorbets
5 - 20%

OTHER TECHNICAL CHARACTERISTICS

- Soluble fiber content: 90%
- It has a sweetening power (SP) of 10% and an anti-crystallization power (ACP) of 6% in relation to sucrose (standard sugar).

APPLICATION TIPS

Soluble/dispersible in hot or cold liquids when gently agitated. It is advisable to cool the mixture to 40°F (5°C) for at least 2 hours so it hydrates fully.

Tips for use

One of the main differences between the two Inulins is their composition. Inulin Cold is 90% fiber and 10% sugar, while Inulin Hot is 99% fiber, which is why the former is sweeter. Another difference is the texture, with Inulin Hot providing a creamier mouthfeel than Inulin Cold. Moreover, Inulin Cold dissolves without heat, while Inulin Hot has to be heated to 140-160°F (60-70°C).

OLIGOFRUCT

Oligofruct is a fiber extracted from roots and tubers. It can be applied to hot or cold liquids and requires only light stirring.

This is a highly soluble fiber. It is an ideal partial replacement for sugars in meringues, ice creams, sponge cakes, mousses, creams and sweet preparations in general. Improves recipes' nutritional value.

ADVANTAGES

- 100% plant-based
- Easily soluble when cold
- Reduces sugar
- It is flavourless and colourless
- Improves thawed products' texture
- Works in acidic preparations

DOSAGE

Between 5 and 20%

MAIN APPLICATIONS

It can be used to replace sugars in part or in full in various preparations, reducing sweetness, improving recipes' nutritional value and enhancing flavours.

Meringues
5 - 10%

Ice creams and sorbets
5 - 20%

Sponges
5 - 15%

OTHER TECHNICAL CHARACTERISTICS

- Soluble fiber content 80.5%
- It has a sweetening power (SP) of 50% and an anti-crystallization power (ACP) of 45% in relation to sucrose (standard sugar).

APPLICATION TIPS

Soluble/dispersible in hot or cold liquids when gently stirred.

"The fibers explored in this booklet can be used as bulking agents (see "bulking fibers"), as a way of reducing sugar or fat content, or as texturizing agents ("high-performance fibers") covering a range of functions from emulsifying to thickening and gelling. Some of them, such as Flaxfiber or Psyllium, also have binding properties; others, such as Oligofruct give preparations such as glazes sweetness and shine, as well as adding extra dry solids and the stability that comes with them.

In the recipes that follow, we present different examples of how to use each of the fibers, both to show you how multi-functional they are as ingredients and to help pastry chefs choose the most suitable one for their recipes.

Jordi Bordas

"After investigating several vegetable fibers in detail, we chose the ones with the best functional capabilities, then developed some recipes that showed them off at their best. The research stage was vital in helping us understand the fibers' physical and chemical properties, including their solubility, their water-absorbing abilities, and their viscosity in water-based solutions with different concentrations.

Once we had collected all this data about each fiber's properties, we moved on to the testing phase to figure out the different quantity ranges for each one. Finally, we developed some recipes that showcase these functional ingredients' most interesting properties.

Adrianna Jaworska

MAKES 3 ENTREMETS

QUANTITIES PER ENTREMET

100 g	Almond sponge cake
150 g	Apricot and vanilla jelly
70 g	Almond crunch
360 g	Almond praliné mousse
QS	Almond praliné glaze
QS	Whole almonds with skin
QS	Flax seeds

Prepare the sponge cake and portion 100 g into three 15cm rings (depth: 3cm) placed on a tray lined with baking paper. Spray lightly with water and bake at 300°F (150°C) for 10 minutes in a convection oven with its vent shut. Cool to room temperature (70°F or 20°C).

Prepare the jelly, place 150g in the rings on the sponge cake and freeze. When completely frozen, remove the ring from the inside and keep in the freezer.

Prepare the crunch and form three 70g discs using a 15cm ring, on a tray with baking paper. Cover with another baking paper and a tray and freeze.

Line three 18cm rings (4cm deep) with acetate and place them on a tray lined with a guitar sheet. Prepare the mousse and use it to half-fill the rings. Put in place the inserts with the sponge cake facing upwards, press down gently and cover with a little more mousse. Finish off by adding the almond crunch discs, smooth the surface. Cover them with a guitar sheet, presssing down with a tray and freeze them.

Prepare the glaze and leave it to chill in the refrigerator for at least 4 hours.

Heat the glaze to 75°F (25°C). Remove the rings and acetate strips from the entremets and glaze them. Place them on bases and decorate with some almond skins, almonds and flax seeds.

ALMOND SPONGE CAKE

70 g	Pasteurised egg white 1 (at 85°F or 30°C) *(19%)*
6.5 g	Sosa Albuwhip *(1.8%)*
49 g	**Sosa Oligofruct** *(13.2%)*
44 g	Pasteurised egg white 2 (at 97°F or 36°C) *(12%)*
48 g	Pasteurised egg yolk (at 97°F or 36°C) *(13%)*
22 g	Sosa raw almond paste *(6%)*
32 g	Sosa coconut sugar *(8.5%)*
57 g	Sosa almond flour (sieved) *(15.5%)*
41 g	Brown rice flour (sieved) *(11%)*

Whip the egg white 1 and Albuwhip for 4 minutes in a stand mixer at medium-high speed. Add the Oligofruct and whip for approx. 6 minutes more, until you have a light meringue, keeping the temperature at approx. 85°F (30°C) during the whole process.

Mix the egg white 2, the egg yolk, the almond paste and the coconut sugar, emulsifying them together thoroughly with a blender. Add the almond flour and mix it in.

Add the rice flour, mixing it continuously with the blender.

When the meringue is ready, incorporate it into the previous preparation, folding it in gently with a spatula.

We heighten this preparation's almond flavour by using both paste and almond flour. We can lower the amount of sugar in the recipe thanks to Oligofruct, using just the right amount of coconut sugar to give the sponge an ideal level of sweetness, as well as a touch of caramelized colour and taste.

JORDI BORDAS

APRICOT AND VANILLA JELLY

58 g	Sugar *(10%)*
58 g	**Sosa Inulin Cold** *(10%)*
7 g	Sosa pectin NH *(1.2%)*
1 g	Sosa guar gum *(0.2%)*
422 g	Adamance apricot purée *(73.2%)*
29 g	Natural lemon juice *(5%)*
2.5 g	Seeds scraped from a Sosa vanilla bean *(0.4%)*

Mix the sugar, inulin, pectin and guar gum.

Heat the purée, juice, and vanilla seeds to 85°F (30°C) in a saucepan. Add the sugar mixture, stirring it in with a whisk, then heat it to 185°F (85°C), stirring all the while.

Inulin Cold reduces some of the recipe's sugar content while giving it a creamier feel.

OSCAR ALBIÑANA

ALMOND CRUMBLE

30 g Sosa coconut sugar *(25%)*
30 g Brown rice flour *(25%)*
30 g Sosa almond flour *(25%)*
0.6 g Sosa fleur de sel *(0.5%)*
26 g Sosa deodorized coconut Bio oil (at 70°F or 20°C) *(21.25%)*
4 g Water *(3.25%)*

Mix all the ingredients using the flat beater of a stand mixer at low speed until homogeneous.

Spread evenly onto a baking sheet lined with baking paper, using a cooling rack to break it into evenly sized pieces, and bake at 300°F (150°C) for 20 minutes in a convection oven with its vent open.

Leave it to cool and cut into pieces of approx. 5 x 5mm, before setting it aside at room temperature (70°F or 20°C).

This lactose-free crumble has a perfectly crunchy texture thanks to the use of deodorized coconut fat and a small percentage of water as substitutes for butter.

JORDI BORDAS

CARAMELISED CHOPPED ALMONDS

90 g Sosa chopped almonds *(59%)*
17 g Water *(11%)*
46 g Sosa coconut sugar *(30%)*

Roast the chopped almonds at 300°F (150°C) for 15 minutes in a convection oven with its vent open and keep them warm.

Cook the water and coconut sugar at 240°F (115°C) in a saucepan, add the hot chopped almonds and keep heating the mixture, stirring vigorously with a spatula, until the sugar sets again.

Spread the almonds onto a baking sheet lined with baking paper and leave to dry at 300°F (150°C) in a convection oven with its vent open for 4 minutes.

Cool to room temperature (70°F or 20°C).

ALMOND CRUNCH

83 g Almond crumble *(33%)*
83 g Caramelised chopped almonds *(33%)*
61 g Sosa raw almond paste *(24.5%)*
23 g Sosa deodorized coconut Bio oil (at 95°F or 35°C) *(9%)*
1.5 g Sosa fleur de sel *(0.5%)*

Mix the crumble and the chopped almonds.

Mix the almond paste, coconut oil and fleur de sel and gently fold them into the crumble mixture.

ALMOND PRALINÉ MOUSSE

517 g Water *(36.9%)*
91 g Gelatine mass 6/1 (at 115°F or 45°C) *(6.5%)*
497 g Valrhona 60% almond praliné *(35.5%)*
1.5 g Sosa guar gum *(0.1%)*
14 g Sosa Natur Emul *(1%)*
182 g Pasteurised egg white (at 70°F or 20°C) *(13%)*
98 g Sosa Oligofruct *(7%)*

Mix the water and gelatine mass using a blender.

Mix the praliné, guar gum and Natur Emul and gradually add the gelatine and water, emulsifying them thoroughly with the blender. Chill until it begins to gel.

Whip the egg white for 4 minutes with the mixer set at medium-high speed. Add the Oligofruct and whip for approx. 6 minutes more, until you have a light meringue, keeping the temperature at approx. 85°F (30°C) during the whole process.

When the meringue is ready, gradually add the previous preparation to the mixer set at low speed, then finish mixing gently by hand.

Natur Emul allows us to emulsify the aqueous part and the fatty part of the recipe, the latter being the almond praliné. On the other hand, Oligofruct helps us to lower the amount of sugar in the recipe without affecting its stability.

JORDI BORDAS

ALMOND PRALINÉ GLAZE

284 g Water (at 105°F or 40°C) *(28.4%)*
150 g Sosa Oligofruct *(15%)*
60 g Gelatine mass 6/1 (at 115°F or 45°C) *(6%)*
200 g Sugar *(20%)*
300 g Valrhona 60% almond praliné *(30%)*
4 g Sosa Flaxfiber *(0.4%)*
2 g Salt *(0.2%)*

Mix the water, Oligofruct and gelatine mass using a blender.

Mix the praliné, the Flaxfiber and the previous preparation and emulsify them thoroughly using the blender. Add the salt.

Leave to stand for at least 4 hours before use.

In glazes, Oligofruct provides not only dry extract, but a glossy look too. It also allows us to reduce the sugar content considerably, something which is often very high in recipes of this type. Natur Emul helps us with the emulsion of the aqueous part and the fatty part (the praliné).

ADRIANNA JAWORSKA

MAKES 4 CAKES

QUANTITIES PER CAKE

280 g	64% Manjari and Pecan Cake batter
100 g	Coffee and Guanaja 70% crémeux
QS	Manjari 64% and pecan glaze

Prepare the crémeux and leave to crystallise in the fridge for at least 3 hours.

Brush 4 19 x 4.5cm cake tins (depth: 4.5cm) with coconut oil and put them on a wire rack. Prepare the cake batter, pour 280 g into the tins, cover with a perforated silicone mat and a wire rack and bake at 300°F (150°C) for 35 minutes in a convection oven with its vent closed. Cool and turn out.

Whisk the crémeux and pour it into a piping bag with a Saint Honoré nozzle. Pipe in diagonal lines on the cakes, smoothing the ends. Keep in the freezer for 10 minutes.

Prepare the glaze, temper it to 75°F (25°C) , and use it to coat the cakes on a wire rack. Leave to crystallise at room temperature (70°F or 20°C) and place on bases.

COFFEE AND GUANAJA 70% CRÉMEUX

119 g	Water *(21.6%)*
193 g	Espresso coffee *(35%)*
44 g	Sosa coconut sugar *(8%)*
193 g	Valrhona Guanaja 70% (at 115°F or 45°C) *(35%)*
2 g	**Sosa Flaxfiber** *(0.4%)*

Mix the water and coffee and heat to 85°F (30°C). Add the coconut sugar and mix with using a blender.

Mix the couverture, Flaxfiber and the previous preparation and emulsify thoroughly using the blender for 1 minute.

We needed an emulsifier to make a light water-based crémeux with a pure dark chocolate and coffee flavour. We chose Flaxfiber for its emulsifying and thickening properties. The result is a light and stable crémeux, which we can dose with a piping bag.

JORDI BORDAS

64% MANJARI AND PECAN CAKE BATTER

308 g	Pasteurised egg white (at 85°F or 30°C) *(22%)*
140 g	Water *(10%)*
154 g	Sosa coconut sugar *(11%)*
112 g	Sosa deodorized coconut Bio oil (at 95°F or 35°C) *(8%)*
14 g	**Sosa Natur Emul** *(1%)*
210 g	Valrhona Manjari 64% 1 (at 115°F or 45°C) *(15%)*
91 g	Sosa pecan flour (sieved) *(6.5%)*
91 g	Sosa almond flour (sieved) *(6.5%)*
140 g	Oat flour (sieved) *(10%)*
14 g	Sosa baking powder (sieved) *(1%)*
126 g	Valrhona Manjari 64% 2 (chopped) *(9%)*

Mix the egg white, water and coconut sugar using a blender. Add the coconut oil, the Natur Emul and the couverture 1 and emulsify thoroughly with the blender for 1 minute.

Mix together the pecan flour, almond flour, oat flour and baking powder and add this to the mixture, working it as little as possible (just enough to incorporate the ingredients).

Add the couverture 2, mixing it with a spatula.

We can use Natur Emul as a substitute for egg yolk's emulsifying properties in baked doughs. This enhances the flavours, as is the case here with the chocolate and nuts.

OSCAR ALBIÑANA

MANJARI 64% AND PECAN GLAZE

300 g	Valrhona Manjari 64% (115°F or 45°C) *(60%)*
150 g	Sosa pecan paste *(30%)*
25 g	Olive oil *(5%)*
25 g	Sosa whole pecan (chopped) *(5%)*

Mix the couverture, pecan paste and olive oil using a blender. Incorporate the chopped pecans, mixing them in with a spatula.

MAKES 12 TARTLETS

QUANTITIES PER TARTLET

20 g	Pistachio financier
55 g	Pistachio sablé
25 g	Coconut crémeux
10 g	Blackcurrant jelly
40 g	Pistachio mousse
QS	Pistachio glaze

Prepare the financier dough and roll it out between 2 methacrylate rulers of 60cm (depth: 8mm), placed 30cm apart on a tray lined with a silicone mat. Remove the rulers and bake at 250°F (120°C) for 27 minutes in a convection oven with its vent closed. Let it cool, peel off the silicone mat and cut it into 12 discs with a 7cm cutter. Reserve at room temperature (70°F or 20°C).

Prepare the sablée dough, roll out 700 g between 2 silicone mats to a depth of 3mm and freeze. Peel off the silicone mats and cut the sablée dough into 12 discs using a 7cm cutter, as well as some 2cm wide strips. Place twelve 8cm perforated rings (depth: 2cm) on a tray lined with a perforated silicone mat, use the strips to line the sides and place the discs in the base. Gently squeeze the edges of the bases with your fingers so that they seal perfectly with the sides, and freeze. Bake at 250°F (120°C) for 40 minutes in a convection oven with its vent open. Let them cool, freeze them and place a disc of financier in the base of each tartlet. Keep in the refrigerator.

Roll up the remaining sablée, spread the chunks evenly on a baking tray lined with baking paper, using a rack to break them into evenly sized pieces, and bake at 250°F (120°C) for 35 minutes in a convection oven with its vent open.

Let them cool, cut them into pieces of approx. 10 x 10mm and mix gently with 60g of melted coconut oil. Reserve at room temperature (70°F or 20°C).

Prepare the crémeux, pour 25g over the financier in each tartlet and freeze.

Prepare the jelly, put 10 g into each one of twelve 4cm silicone molds (depth: 2cm) (SilikoMart model SF027) and freeze. When the jellies have completely frozen, turn them out and keep them in the freezer.

Prepare the pistachio mousse and use it to half-fill twelve 6.5cm 12 silicone molds (depth: 2.5cm) (SilikoMart model SF333). Insert the jelly discs, finish filling the molds with more mousse, smooth out and freeze.

Prepare the glaze and leave it to chill in the refrigerator for at least 4 hours.

Heat the glaze to 85°F (30°C). Unmold the mousse discs, glaze them, and place them on the tartlets. Decorate by placing some sablé pieces around the mousse. Arrange them on bases.

PISTACHIO FINANCIER

189 g	Water (at 70°F or 20°C) *(27%)*
63 g	Sosa pistachio paste *(9%)*
35 g	Sunflower oil *(5%)*
84 g	Sugar *(12%)*
3.5 g	Salt *(0.5%)*
3 g	**Sosa Flaxfiber** *(0.4%)*
140 g	Brown rice flour (sieved) *(20%)*
161 g	Sosa pistachio flour (sieved) *(23%)*
14 g	Sosa water-soluble natural mint green colouring powder (sieved) *(2%)*
7.5 g	Sosa baking powder (sieved) *(1.1%)*

Mix the water, pistachio paste, sunflower oil, sugar, salt and Flaxfiber and emulsify thoroughly using a blender for 1 minute.

Mix the rice flour, pistachio flour, food colouring and baking powder and whisk them into the previous preparation.

In this vegan, gluten-free dough, Flaxfiber helps us to create the financier structure and a perfect result that doesn't fall apart after baking.

ADRIANNA JAWORSKA

PISTACHIO SABLÉ

145 g	Water (at 70°F or 20°C) *(13.2%)*
187 g	Sugar *(17%)*
110 g	Sosa deodorized coconut Bio oil (at 95°F or 35°C) *(10%)*
77 g	Sunflower oil *(7%)*
13 g	Sosa water-soluble natural mint green colouring powder *(1.2%)*
11 g	**Sosa Natur Emul** *(1%)*
416 g	Brown rice flour *(37.8%)*
99 g	Sosa pistachio flour *(9%)*
33 g	**Sosa Psyllium** *(3%)*
5.5 g	Sosa baking powder *(0.5%)*
3.5 g	Salt *(0.3%)*

Mix the water, sugar, coconut oil, sunflower oil, colouring and Natur Emul and emulsify thoroughly using a blender for 1 minute.

Mix the previous preparation with the rest of the ingredients using a blender with the paddle attachment at lowest speed until it is homogeneous.

Using Natur Emul and Psyllium, we get the perfect texture for a vegan, gluten-free sablé. Natur Emul helps us to replace egg yolk's emulsifying properties, while Psyllium gives structure to a sablé made with gluten-free flours.

JORDI BORDAS

COCONUT CRÉMEUX

28 g	Sugar *(7%)*
12 g	**Sosa Inulin Cold** *(3%)*
3 g	Sosa pectin Acid Free *(0.7%)*
356 g	Adamance coconut purée *(89%)*
1 g	**Sosa Flaxfiber** *(0.3%)*

Mix together the sugar, inulin, and pectin.

Heat the purée to 85°F (30°C) in a saucepan, whisk in the sugar mixture and heat to 185°F (85°C), stirring all the while.

Mix the Flaxfiber and the previous preparation and emulsify thoroughly using a blender for 1 minute.

Acid Free Pectin is a Sosa exclusive that gels non-acidic preparations and gives them a very creamy texture.

OSCAR ALBIÑANA

In this case, Flaxfiber is used to create an emulsion and add extra stability thanks to its great thickening properties.

ADRIANNA JAWORSKA

BLACKCURRANT JELLY

28 g	**Sosa Oligofruct** *(15%)*
0.6 g	Sosa guar gum *(0.3%)*
2.5 g	Sosa pectin NH *(1.4%)*
42 g	Water *(22.8%)*
112 g	Adamance blackcurrant purée *(60.5%)*

Mix the Oligofruct, guar gum and pectin.

Heat the water and purée to 85°F (30°C) in a saucepan, whisk in the Oligofruct mixture and heat to 185°F (85°C), stirring all the while.

We opted for a sugar-free purée and Oligofruct to make our blackcurrant jelly without added sugar. Thanks to this fiber, the jelly is sweet and stable enough, even when frozen or thawed.

ADRIANNA JAWORSKA

PISTACHIO MOUSSE

28 g	Sugar *(4%)*
14 g	Sosa Vegan Mousse Gelatine *(2%)*
342 g	Water 1 *(48.8%)*
154 g	Sosa pistachio paste *(22%)*
28 g	Sosa deodorized coconut Bio oil *(4%)*
3 g	**Sosa Flaxfiber** *(0.4%)*
84 g	Water 2 *(12%)*
2 g	Sosa Sojawhip *(0.3%)*
46 g	**Sosa Oligofruct** *(6.5%)*

Mix the sugar and Vegan Mousse Gelatine.

Heat the water 1 to 85°F (30°C) in a saucepan, whisk in the sugar mixture and bring to a boil, stirring all the while.

Mix the pistachio paste, coconut oil, Flaxfiber and the previous preparation and emulsify thoroughly using a blender for 1 minute. Cool to 85-95°F (30-35°C).

Beat the water 2 and Sojawhip for 6 minutes in the mixer at medium-high speed. Add the Oligofruct and whip for approx. 4 minutes more, until you have a light meringue, keeping the temperature at approx. 85°F (30°C) during the whole process.

When the meringue is ready, incorporate the previous preparation at 85-95°F (30-35°C), folding it in gently with a spatula.

Vegan Mousse Gelatine is a gelling agent we have developed to replace animal gelatine in mousses. It provides a firm but smooth texture and, if you freeze it, it retains its texture when it thaws.

OSCAR ALBIÑANA

Used as an emulsifier, thickener and stabilizer in this mousse, Flaxfiber helps us to create an airy, smooth yet stable texture.

ADRIANNA JAWORSKA

PISTACHIO GLAZE

75 g	**Sosa Oligofruct** *(25%)*
15 g	**Sosa Inulin Cold** *(5%)*
1 g	Sosa pectin Acid Free *(0.4%)*
0.6 g	Sosa water-soluble natural mint green colouring powder *(0.2%)*
116 g	Water *(38.8%)*
90 g	Sosa pistachio paste *(30%)*
1 g	**Sosa Natur Emul** *(0.4%)*
0.6 g	Salt *(0.2%)*

Mix the Oligofruct, inulin, pectin, and colouring.

Heat the water to 85°F (30°C) in a saucepan and whisk in the Oligofruct mixture, then heat to 185°F (85°C), stirring all the while.

Mix the pistachio paste, the Natur Emul, the salt and the previous preparation and emulsify thoroughly using a blender for 1 minute.

PASTRY / BAKERY

Problem	Recommended products	Solution
I want to reduce my products' fat content	**INULIN HOT** 	Replace part or all of the fat with Inulin Hot
I want to reduce my products' sweetness	**OLIGOFRUCT OR INULIN COLD** 	Replace some (Inulin Cold) or all (Oligofruct) of the sugar
I want to improve products' texture when defrosting or solve the syneresis (water separation) problem.	**FLAXFIBER** 	Add Flaxfiber (or use xanthan gum if Flaxfiber is already used in the recipe)
I want to improve emulsions or replace an emulsifier	**NATUR EMUL AND FLAXFIBER** 	Replace egg yolks or another emulsifier
I want to replace gluten	**PSYLLIUM AND FLAXFIBER** 	Replace wheat flour with Psyllium in combination with gluten-free starches and Flaxfiber

Because we have close connections to pastry professionals all around the world, we're able to identify the problems they encounter most often.

In the following table, we select five of the most frequently asked questions and suggest the potential solutions our range of fibers can provide.

OSCAR ALBIÑANA

	Meringues	Mousses	Cake mixes and pastries	Glazes	Creams and crémeux	Ice creams & sorbets
		✓			✓	✓
	✓	✓	✓	✓	✓	✓
		✓		✓	✓	✓
		✓		✓	✓	✓
			✓			

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