
MANUAL OF
Fibers
IN PASTRY MAKING
JORDI BORDAS X Sosa

Editorial

Gastronomy is changing, consumers have new demands: they are looking to reduce sugars and fats in their diets, reduce or eliminate animal proteins, take care of their impact on the environment. And with this transformation, pastry professionals are facing new technical challenges.

At Sosa Ingredients we work every day to provide ingredients and innovative solutions to the technical challenges of gastronomy professionals. This is how we have detected a new fiber with interesting functionalities: Flaxfiber.

Flaxfiber confirms that fibers are here to stay, and that they represent a new playing field in gastronomy.

In our efforts to continue contributing to gastronomy with new ingredients, we have worked in alliance with Jordi Bordas, one of the pioneering centres in R+D+I in pastry, and one of the first to explore the use of fibers.

During the last year, both teams have worked hard to demonstrate that the incorporation of fiber in recipes improves textures, allows to reduce sugars and fats and, at the same time, improves the flavour of the products. This is how this manual on the use of fibers in pastry was born, which we hope will serve as a guide to reformulate your proposal from now on.

About JORDI **BORDAS**

After winning the **Coupe du Monde de Pâtisserie** in 2011, Jordi Bordas founded the pastry school in Viladecans (Barcelona) with the aim of transmitting all his experience and knowledge to the new generations of the sweet sector. With the **B-Concept**, Jordi revolutionised the world of pastry by demonstrating that a **healthier, lighter, and tastier pastry** is not only possible, but that it is one of the main needs of consumers.

About *Sosa*

Sosa Ingredients is one of the leading manufacturers and suppliers of top-quality ingredients for bakery and gastronomy. Founded in Catalonia in 1967. Sosa Ingredients is committed to using its technological know-how to innovate and improve its products constantly to make a more responsible and accessible gastronomy.

Structure

THE KEY INGREDIENT OF TOMORROW'S PASTRY

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

JORDI BORDAS

World pastry champion 2011. Founder of the Jordi Bordas training and research centre.

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

During this work we have been able to test fibers from different origins, some of which have never even been used in pastry, and at the same time to reinforce our knowledge of the fibers already present.

We have discovered a new fiber, which we think it will be very important in pastry making:

Flaxfiber, a fiber from flax seeds, that allows us to thicken, emulsify and stabilize. It has been a great surprise to discover all that this new ingredient brings us.

Because of their wide range of origins, functionalities, and benefits, we consider Fibers as a new category of ingredients in bakery, which will be great allies for professionals facing the challenges of making a more responsible bakery: with less sugar, less fat, more texture and more flavour.

This practical guide brings together all this collaborative work which we hope will be helpful to the pastry sector.

Fibers are ingredients that has been overlooked by the food industry until recently, but this is changing rapidly thanks to the emergence of fibers with incredible texturizing properties.

Thanks to our collaboration with Sosa, we were able to discover Flaxfiber, the flax fiber with very interesting applications in pastry making.

ADRIANNA JAWORSKA

R&D Director of the Jordi Bordas training and research centre.

In our continuous research to provide solutions in gastronomy, we have discovered the great potential that fibers have as a technical ingredient and texture contribution in culinary elaborations.

Collaborating with Jordi Bordas' team has helped us to understand the solutions that Fibers offer in the pastry.

OSCAR ALBIÑANA

R&D Manager Sosa Ingredients

Pastry professionals face major challenges as consumer demands evolve at a rapid pace. It is becoming increasingly necessary for gastronomy professionals to understand the function of the ingredients involved 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 Sosa Ingredients

Dietary fiber serves as the structural part of plants and is found in all foods derived from plant products.

It is the edible part of plants that our digestive enzymes cannot break down, so fiber is not digested in the same way as sugars and starches and arrives intact in the gut 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 fruits. They have the characteristic of absorbing a lot of water and can form viscous gels. They reduce and slow down the absorption of fats and sugars from food.

Insoluble Fibers :
They predominate in foods such as wheat bran, whole grains, some vegetables, and cereals. They have a low water absorption capacity and their main effect on the body is to clean the intestinal tract walls.

In addition to the fiber naturally present in our food, we can add fiber to our recipes and products to improve the nutritional value.

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

WHY ARE THEY INTERESTING IN PASTRY?

Pastry making is a discipline in which several technical functions are involved, which are necessary to obtain a good result.

It is difficult to imagine a pastry making process that does not involve an emulsion, and the need to thicken or stabilise elaborations is also common, to achieve better results and improve the texture of the final product.

Traditionally these functions have been covered by the basic ingredients, e.g., eggs, fats such as butter or cream, sugars, etc.

Fibers provide a range of interesting options to replace or improve the technical functions of the basic ingredients.

By using Fibers, we can obtain a pastry with a better texture, lighter, healthier, and at the same time enhance flavours, such as fruit or nuts, which can sometimes be masked by an overuse of ingredients such as egg, dairy, or sugars.

FIBERS AND THEIR MAIN TECHNICAL FUNCTIONS

Thicken

This function consists of adding body to a liquid preparation while increasing viscosity and density in preparations such as coulis, sauces, and creams.

There are many ways of thickening, using binding agents such as gums, starches or flours, although it is also common to use eggs and fats such as butter or even evaporation methods.

Fibers can also fulfil this function, we mainly recommend Flaxfiber for its great thickening capacity without the need to heat the liquid and without adding colour or flavour to the preparation.

Provide elasticity

It is the property of recovering a shape once we stop exerting pressure on a structure such as a bread dough. This function allows the dough to be stretched without breaking and allows the gas to be trapped during fermentation, thus increasing the volume of the dough.

It also prevents doughs from crumbling and gives a good cut, e.g., in sponge cakes.

Gluten in wheat flour is one of the main contributors to this function, although it can be replaced by Psyllium fiber, even improving the kneading process.

Binding

Binding is a process that allows different ingredients to be joined together or to make a more compact dough. It is a very common action in baking to make doughs such as biscuits or cakes, as well as to improve the texture and consistency of certain preparations containing solids. Egg is one of the most used binders.

Flaxfiber and Psyllium are Fibers which, due to their characteristics, can also perform this function.

Stabilise

This is the process by which we manage to maintain the appearance and texture of a product over a prolonged period or during freezing and thawing processes. For example, in the case of ice cream, to keep it from melting for longer, to obtain a firmer meringue for longer or to keep an intact texture of a mousse after defrosting.

Flaxfiber provides stability to meringues, ice creams and creams, preserving textures during freezing and thawing processes.

Emulsify

An emulsion is a homogeneous union of fats and water. It is a very important technical function in confectionery because it is involved in most preparations, such as creams, ice creams, sponge cakes or mousses. For an emulsion to be produced, an ingredient with emulsifying properties is necessary.

Natur Emul and Flaxfiber allow this function to be performed.

Provide a fat sensation

Fat in pastry provides creaminess and texture and acts as a taste transmitter.

The most used fats in pastry are butter, cream and egg yolk, although vegetable fats such as coconut fat, cocoa butter or shea butter are also used.

Adding inulin, we can increase a fatty sensation to any preparation containing liquids with the benefit of reducing or even eliminating fats from the recipe, while maintaining the creaminess and texture.

Provide solids

The amount of solids in a recipe plays a very important role. We can classify them in 4 families: sugars, flours (starches, etc.), fats and fibers.

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

Fibers such as inulins provide structure and creaminess to a greater or lesser extent. They also play a fundamental role in the substitution of sugars, especially oligofructose.

FIBERS ACCORDING TO SOSA INGREDIENTS

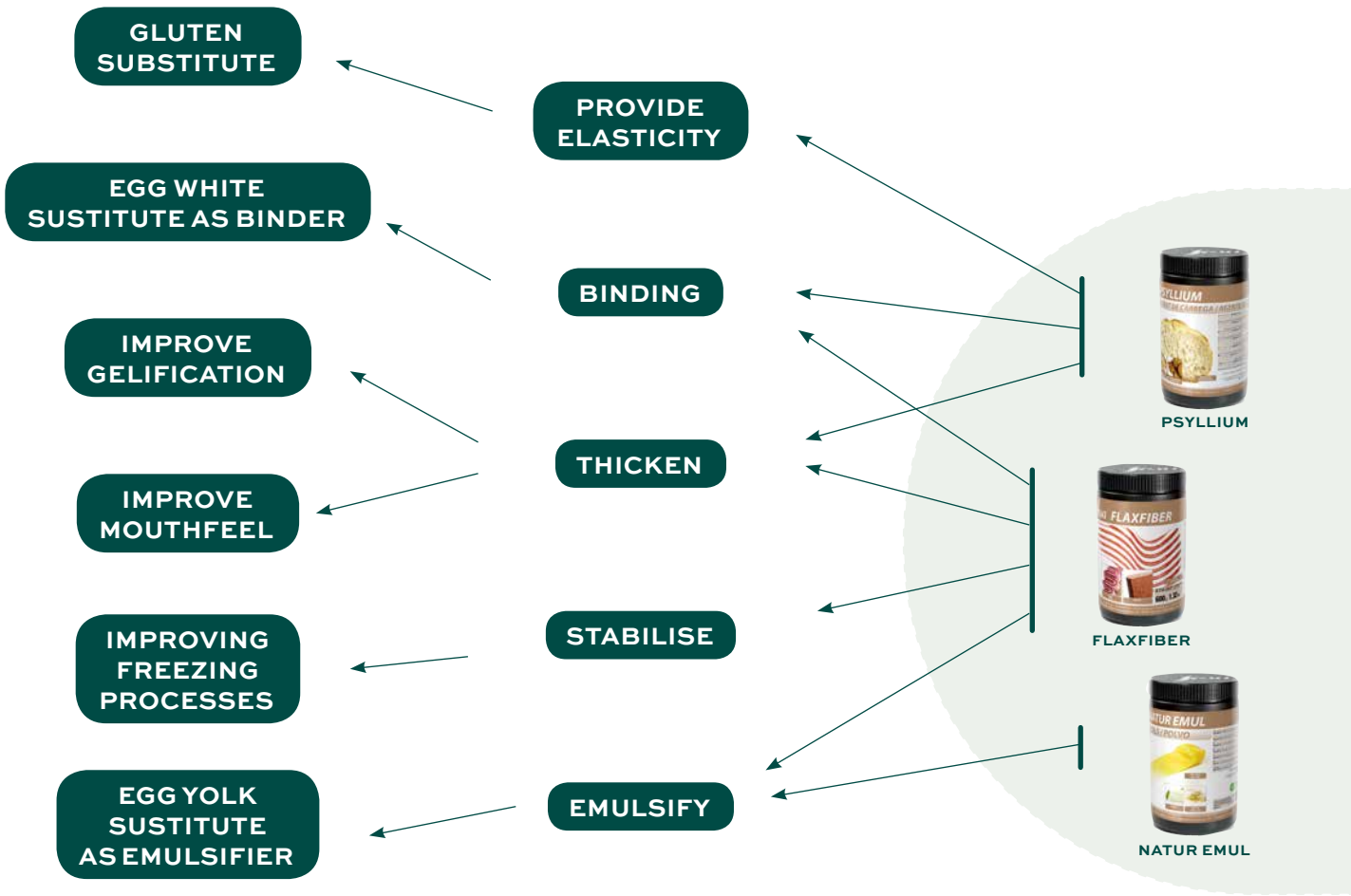
We classify our Fibers according to their technical functions into 2 groups, High Functional Fibers and Bulking Fibers.

HIGH PERFOMANCE FIBERS

NATUR EMUL, PSYLLIUM, FLAXFIBER

Highly functional Fibers fulfil remarkable technical functions at low dosage (0.1 to 4%). They are composed of a combination of soluble and insoluble fiber.

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



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

This categorisation is based on product nature and in terms of the dose ratio, technical function, and the solutions they offer.

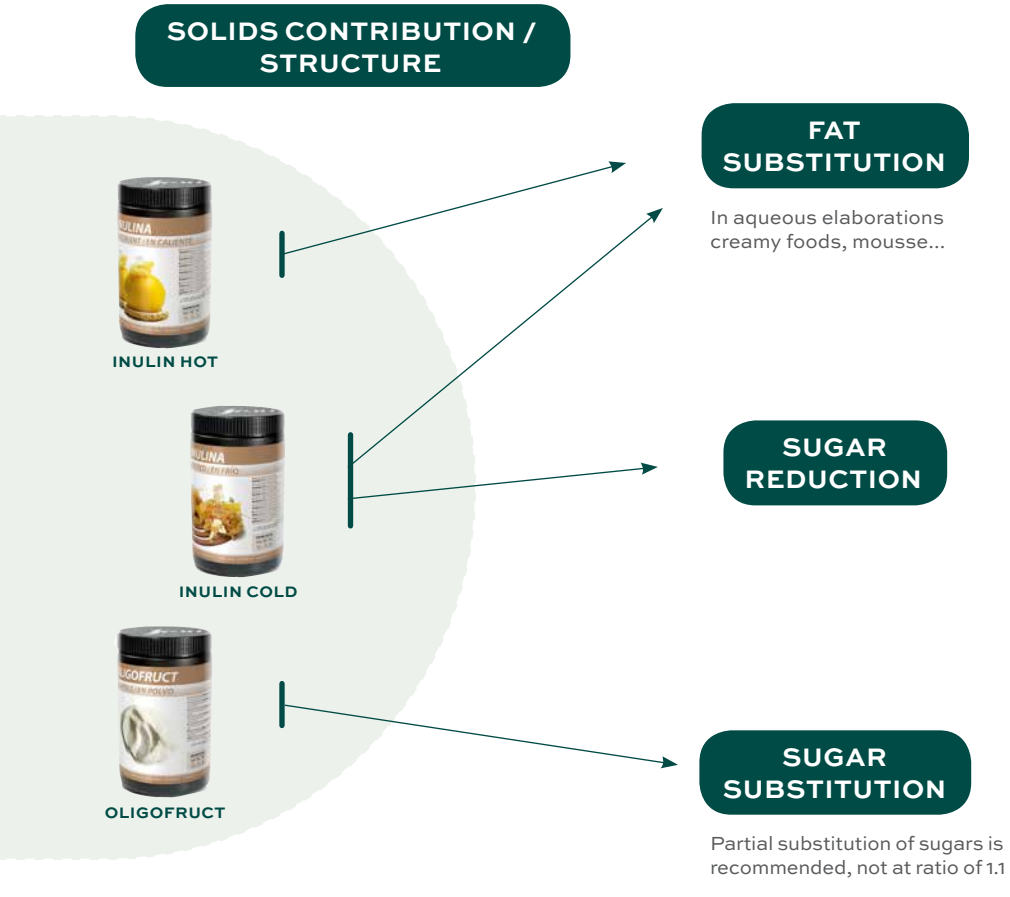
BULKING FIBERS

INULIN HOT, INULIN COLD, OLIGOFRUCT

These are soluble Fibers, which, due to their structure, can be comparable to sugars and other bulking agents.

We can incorporate a high dosage in the preparations (up to 20%), allowing to increase or replace solids in the recipes such as sugars and fats.

Depending on the type of filler fiber, different levels of texture and sweetness can be achieved.



	AFP* (antifreezing power)	SP* (sweetening power)	Fat substitution	Sugar substitution
Inulin Hot	5 %	0 %	🟢	🔴
Inulin Cold	6 %	10 %	🟢	🟠
Oligofruct	45 %	50 %	🔴	🟢

* % compared to sucrose

FLAXFIBER

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

BENEFITS

- 100% plant-based
- It is considered as fiber in the ingredient declaration (not considered as an additive).
- Dissolves easily, even without heating
- Thickens without adding flavour or colour
- Increases the creaminess in elaborations
- Works with acid elaborations

DOSAGE

Between 0,1 to 4%

OTHER TECHNICAL CHARACTERISTICS

- Fiber content >76%
  - Soluble fiber >12%
  - Insoluble fiber >88%
- Cooking and freezing resistant.

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 APPLICATIONS

Binding effect in **doughs and biscuits**. In beverages it helps to prevent the separation of solids (cocoa drink, fruit pulp) and provides viscosity.

Tips for use

Very easy, mix with hot or cold liquid, depending on dosage.

The first time we tried Flaxfiber, we were surprised by its great thickening and stabilising capacity, as well as its completely neutral taste. It can be used to thicken, emulsify, and stabilise creams, ganache or mousses, and even to improve the texture of baked doughs. It really is a great ingredient that will revolutionise the food industry. Moreover, it is a clean-label ingredient that allows us to create all kinds of textures and meet the needs of the market at the same time.

JORDI BORDAS

During our studies with different fibers, we discovered the unique texturizing properties of flax fiber, which combines three very necessary functions in pastry making: thickening, stabilisation, and emulsification, while respecting the flavour, colour and transparency of the products where it is applied.

In addition, these functionalities are possible with alcoholic and acidic liquids, making it even more versatile.

OSCAR ALBIÑANA

NATUR EMUL

Fiber from citrus fruits. It is mainly extracted from citrus peel, which is usually discarded by juice manufacturers. Ideal for emulsifying: can replace egg yolk as an emulsifier.

BENEFITS

- Emulsifier 100% vegetable origin
- It is considered a fiber in the ingredient declaration (not considered an additive).
- Emulsifies hot and cold elaborations
- Improves the texture of the products when thawed
- Works in acidic preparations

DOSAGE

Between 0,5 to 2%

OTHER TECHNICAL CHARACTERISTICS

- Fiber content 68,2 %
  - Soluble fiber 33,3 %
  - Insoluble fiber 34,9 %
- Cooking and freezing resistant.

MAIN APPLICATIONS

Emulsified creams or sauces

Whipped doughs

Ice Cream

Tips for use

Easily soluble/dispersible in water and fats, both in hot and cold conditions, also in acidic preparations.

Also ideal for emulsifying fatty glazes.

OUR FIBERS

PSYLLIUM

Fiber from the husk of the Plantago Ovata plant. Ideal for substituting the gluten function in doughs such as gluten-free breads. Provides elasticity, sponginess, and texture.

BENEFITS

- High capacity to hold liquids (1:40)
- Elasticity contribution
- Very stable to temperature and pH changes
- It can be used as a substitute for gluten in recipes such as bread and dough.
- High binding and thickening functionality.

DOSAGE

Between 2 to 4%.

OTHER TECHNICAL CHARACTERISTICS

- Fiber content >87,8%
  - Soluble fiber 29,2%
  - Insoluble fiber 58,5%
- Cooking and freezing resistant.

MAIN APPLICATIONS

Gluten-free bread
Highly elastic doughs (pizza type): 4%*.
Low hydration doughs (loaf type):
2%* in the flour ratio

Gluten-free sponge cake
1 - 2 %

Bound preparations
2 - 4 %

APPLICATION TIPS

Soluble/dispersible in water with strong agitation, both in hot and cold conditions, in a wide pH range. In breads and doughs, integrate with solids (flours and starches).
As a replacement of egg as a binder in preparations such as cereal bars or meat analogues in general («veggie burgers», Nuggets, etc.).

Tips for use

Flour substitutes mix 1:1 ratio
Ideally use a combination of gluten-free flour and starches in the following ratio:

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

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

INULIN HOT

Inulin Hot is a fiber extracted from roots and tubers. It is applied in liquids, hot (between 60-70 ºC), with a strong agitation for its correct hydration.

It provides a creamy texture that allows to add solids and at the same time to reduce or replace fats and sugars in preparations such as ice creams, creams and ganaches.

BENEFITS

- 100% vegetable origin
- Great fat substitute: provide a fatty sensation and at the same time makes the elaborations lighter
- No flavour or colour
- Maintains the texture of the products when thawed
- Works with acidic preparations
- It allows partial or total substitution of fats and solids such as sugars in different preparations.

DOSAGE

Between 5 to 20%

MAIN APPLICATIONS

Creams and crémeux
5 - 20%*

Mousses
5 - 10%

Ice Cream
5 - 15%

OTHER TECHNICAL CHARACTERISTICS

- Soluble fiber content 96.7%.
- It has an anti-freezing power (AFP) of 5% and 0% sweetening power (POD) relative to sucrose (common sugar).
- It is thermo-reversible, when heated above 35-40% it starts to lose its texture, in the same way as fats in general.

Tips for use

It should be borne in mind that depending on the fats to be substituted, the liquids in the recipe will have to be increased, because these fats also contain a part of liquid.

Butter: 15% liquid

Cream: 65% liquid

This proportion of liquid can be substituted with water or other liquids.

APPLICATION TIPS

Soluble/dispersible in liquids with strong agitation. For complete dissolution it is recommended to heat the mixture to 50-70ºC. Then cool the mixture to 5ºC for at least 2 hours for complete hydration.

*If you are looking to add creaminess without varying the recipe, we recommend a dosage of around 5% to 10%, this will help to increase the creamy texture. If you are looking to substitute part or all the fat in a recipe, such as butter or cream, we recommend higher proportions, between 10% to 20%.

INULIN COLD

Inulin Cold is a fiber extracted from roots and tubers. It is applied in liquids, cold or hot with strong agitation.

It provides a creamy texture that allows to add solids, reduce sugars and fats in preparations such as meringues, mousses, ice creams and sorbets, creams, custards and ganache.

BENEFITS

- 100% vegetable origin
- Creaminess
- Allows sugar to be reduced in preparations
- No flavour or colour
- Maintains the texture of the products when thawed
- Works with acidic preparations

DOSAGE

Between 5 to 20%

MAIN APPLICATIONS

Allows partial or total substitution of solids as sugars in different preparations. At the same time, it provides creaminess.
Ideal for sorbets as it dissolves easily when cold to maintain the fresh flavour of the fruit.

Meringue
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-freezing power (AFP) of 6% in relation to sucrose (common sugar).

APPLICATION TIPS

Soluble/dispersible in hot or cold liquids with gentle stirring. For complete hydration, it is recommended to cool the mixture at 5°C for at least 2 hours.

Tips for use

One of the main differences between these two inulins is its composition. Inulin Cold is composed of 90% fiber and 10% sugars, while Inulin Hot is 99% fiber, so it can be used as therefore, Inulin Cold is sweeter.

Another difference is the texture it provides. Inulin Hot provides more fatty sensation than Inulin Cold.

In addition, Inulin Cold dissolves without the need for heat, whereas it is necessary to heat the Inulin Hot between 60 °C and 70 °C.

OLIGOFRUCT

Oligofruct is a fiber extracted from roots and tubers. It is applied in liquids, cold or hot with light shaking.

It is a highly soluble fiber ideal for partially replacing sugars in meringues, ice cream, sponge cakes, mousse, creams and sweet preparations in general. Improving the nutritional value of recipes.

BENEFITS

- 100% vegetable origin
- Easily soluble when cold
- Allows sugar to be reduced in preparations
- No flavour or colour
- Maintains the texture of the products when thawed
- Works with acidic preparations

DOSAGE

Between 5 to 20%.

MAIN APPLICATIONS

It allows partial or total substitution of sugars in different preparations, thus reducing sweetness, nutritionally improving recipes and enhancing flavours.

Meringue
5 - 10%*

Ice creams and sorbets
5 - 20%

Sponge cakes
5 - 15%

OTHER TECHNICAL CHARACTERISTICS

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

APPLICATION TIPS

Soluble/dispersible in hot or cold liquids with gentle agitation.

Jordi Bordas

The Fibers mentioned in this dossier are ingredients that can be used as bulking agents (bulking Fibers), to reduce the amount of sugar or fat in our recipes; or as texturizing agents (high-performance Fibers): emulsifying, thickening, gelling, etc. agents. Some of them, such as Flaxfiber or psyllium, also have binding properties; others, such as oligofructose, apart from providing us with more dry extract and, consequently, more stability, provide sweetness and even shine, as in the case of glazes.

In the recipes of the dossier, we present different examples of use/application for each of the fibers introduced, both to show the multifunctionality of these ingredients and to help pastry chefs to choose the most suitable fiber for their recipes.

After a detailed investigation of several vegetable fibers, we chose the ones with the best functional capacities, and then developed the recipes that best exemplified their application. The research stage was essential to understand the essential physicochemical properties of these Fibers: their solubility, their water absorption capacity, their viscosity in aqueous solutions at different concentrations.

Once we have this database on the properties of each fiber, we move on to the testing phase to determine the different dosage ranges for each of them. Finally, we develop recipes with applications that highlight the most interesting properties of these functional ingredients.

Adrianna Jaworska

RECIPE FOR 3 ENTREMETS

WEIGHTS PER PIECE

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

Prepare the sponge cake and portion 100 g into 3 rings, 15 cm in diameter and 3 cm high, on a tray lined with baking paper. Spray lightly with water and bake at 150 °C for 10 minutes in a ventilated oven with the vent closed. Cool to room temperature (20 °C).

Prepare the jelly, place 150 g 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 crisp and form 3 discs of 70 g using a ring of 15 cm in diameter, on a tray with baking paper. Cover with another baking paper and a tray and freeze.

Place 3 rings 18 cm in diameter and 4 cm high, lined with 4 cm high plastic strips, on a tray with a plastic sheet. Prepare the mousse, pour it halfway into the rings, place the insert with the sponge cake facing upwards, press gently and cover with a little more mousse. Finish with the almond crunch discs, smooth, cover with a plastic sheet, press with a tray and freeze.

Prepare the glaze and chill in the fridge for at least 4 hours.

Heat the glaze to 25 °C. Remove the rings and plastic strips from the entremets and glaze. Place on bases and decorate with almond skins, almonds and flax seeds.

ALMOND SPONGE CAKE

70 g	Pasteurised egg white 1 (at 30 °C) *(19%)*
6,5 g	Albuwhip Sosa *(1,8%)*
49 g	**Oligofruct Sosa** *(13,2%)*
44 g	Pasteurised egg white 2 (at 36 °C) *(12%)*
48 g	Pasteurised egg yolk (at 36 °C) *(13%)*
22 g	Raw almond paste Sosa *(6%)*
32 g	Coconut sugar Sosa *(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 the mixer on medium-high speed. Add the Oligofruct and whip for about 6 minutes more, until a light meringue is obtained, maintaining a temperature of about 30 °C throughout the process.

Mix the egg white 2, the egg yolk, the almond paste and the coconut sugar, emulsifying intensively with the blender. Add the almond flour and mix.

Add the rice flour, working continuously with the blender.

When the meringue is ready, fold into the previous mixture, working gently with a spatula.

In this recipe we enhance the almond flavour by using both almond paste and almond flour. Thanks to Oligofruct, we lower the amount of sugar in the recipe, using just the right amount of coconut sugar to give the sponge an optimal sweetness, as well as a little caramelized colour and aroma.

JORDI BORDAS

APRICOT AND VANILLA JELLY

58 g	Sugar *(10%)*
58 g	**Inulin Cold Sosa** *(10%)*
7 g	Pectin NH Sosa *(1,2%)*
1 g	Guar gum Sosa *(0,2%)*
422 g	Apricot purée Adamance *(73,2%)*
29 g	Natural lemon juice *(5%)*
2,5 g	Vanilla bean *(0,4%)*

Mix the sugar, inulin, pectin and guar gum.

Heat the puree, juice, and vanilla (seeds) to 30 °C in a saucepan, add the sugar mixture, stirring with a whisk, and heat to 85 °C, stirring constantly.

Inulin Cold helps to reduce some of the sugar in the recipe while adding creaminess to this preparation.

OSCAR ALBIÑANA

ALMOND CRUMBLE

30 g Coconut sugar Sosa *(25%)*
30 g Brown rice flour *(25%)*
30 g Almond flour Sosa *(25%)*
0,6 g Flor de sal Sosa *(0,5%)*
26 g Deodorized coconut oil Bio Sosa (at 20 °C) *(21,25%)*
4 g Water *(3,25%)*

Mix all the ingredients in the blender at low speed with the paddle attachment until a homogeneous texture is obtained.

Spread evenly on a baking tray with baking paper, using a rack as a grater, and bake at 150 °C for 20 minutes in a ventilated oven with an open flue.

Cool, cut into pieces of about 5 x 5 mm and set aside at room temperature (20 °C).

This is a lactose-free crumble with 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 GRANULATED ALMONDS

90 g Almond granulated Sosa *(59%)*
17 g Water *(11%)*
46 g Coconut sugar Sosa *(30%)*

Roast the granulated almonds at 150 °C for 15 minutes in a ventilated oven with the flue open and keep warm.

Boil the water and coconut sugar at 115 °C in a saucepan, add the hot granulated almonds and continue to heat, stirring vigorously with a spatula, until the sugar recrystallises.

Roll out on a baking tray with baking paper and dry at 150 °C for 4 minutes in a ventilated oven with an open flue.

Cool to room temperature (20 °C).

ALMOND CRUNCH

83 g Almond crumble *(33%)*
83 g Caramelised granulated almonds *(33%)*
61 g Raw almond paste Sosa *(24,5%)*
23 g Deodorized coconut oil Bio Sosa (at 35 °C) *(9%)*
1,5 g Flor de sal Sosa *(0,5%)*

Mix the crumble and the granulated almonds.

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

ALMOND PRALINE MOUSSE

517 g Water *(36,9%)*
91 g Gelatine mass 6/1 (at 45 °C) *(6,5%)*
497 g 60 % Valrhona almond praline *(35,5%)*
1,5 g Guar gum Sosa *(0,1%)*
14 g Natur Emul Sosa *(1%)*
182 g Pasteurised egg white (at 20 °C) *(13%)*
98 g Oligofruct Sosa *(7%)*

Mix the water and gelatine mass with the blender.

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

Whip the egg white for 4 minutes in the mixer on medium-high speed. Add the Oligofruct and whip for about 6 minutes more, until a light meringue is obtained, maintaining a temperature of about 30 °C during the whole process.

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

Natur Emul allows us to create an emulsion between the watery part and the fatty part (the almond praline) of the recipe. On the other hand, Oligofruct helps us to reduce the amount of sugar in the recipe without affecting its stability.

JORDI BORDAS

ALMOND PRALINE GLAZE

284 g Water (at 40 °C) *(28,4%)*
150 g Oligofruct Sosa *(15%)*
60 g Gelatine mass 6/1 (at 45 °C) *(6%)*
200 g Sugar *(20%)*
300 g 60 % Valrhona almond praline *(30%)*
4 g Flaxfiber Sosa *(0,4%)*
2 g Salt *(0,2%)*

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

Mix the praline, the Flaxfiber and the previous preparation and emulsify intensively with the blender. Add the salt.

Let rest for at least 4 hours before using.

In glazes, Oligofruct provides not only dry extract, but also a little shine. It also allows us to considerably reduce the amount of sugar, which is usually very high in this type of recipe. Natur Emul helps us with the emulsion of the watery part and the fatty part (the praline).

ADRIANNA JAWORSKA

RECIPE FOR 4 CAKES

WEIGHTS PER PIECE

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

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

Brush 4 cake tins of 19 x 4.5 cm base and 4.5 cm height with coconut oil and place on a wire rack. Prepare the cake batter, dispense 280 g into the moulds, cover with a perforated silicone mat and a wire rack and bake at 150 °C for 35 minutes in a ventilated oven with the draught closed. Cool and turn out.

Work the crémeux with a whisk and pour into a piping bag with a Saint Honoré nozzle. Pipe in diagonal lines on the cakes and smooth the ends. Set aside in the freezer for 10 minutes.

Prepare the bath, temper to 25 °C, and dip the cakes on a wire rack. Leave to crystallise at room temperature (20 °C) and place on bases.

CRÉMEUX COFFEE AND GUANAJA 70%

119 g	Water *(21,6%)*
193 g	Espresso coffee *(35%)*
44 g	Coconut sugar Sosa *(8%)*
193 g	Guanaja 70 % Valrhona (at 45 °C) *(35%)*
2 g	**Flaxfiber Sosa** *(0,4%)*

Mix the water and coffee and heat to 30 °C. Add the coconut sugar and mix with the blender.

Mix the couverture, Flaxfiber and the previous preparation and emulsify intensively with the blender for 1 minute.

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

JORDI BORDAS

64% MANJARI AND PECAN CAKE DOUGH

308 g	Pasteurised egg white (at 30 °C) *(22%)*
140 g	Water *(10%)*
154 g	Coconut sugar Sosa *(11%)*
112 g	Deodorized coconut oil Bio Sosa (at 35 °C) *(8%)*
14 g	**Natur Emul Sosa** *(1%)*
210 g	Manjari 64 % Valrhona 1 (at 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	Baking powder Sosa (sieved) *(1%)*
126 g	Manjari 64 % Valrhona 2 (chopped) *(9%)*

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

Mix together the pecan flour, almond flour, oat flour and baking powder and add to the mixture, working as little as possible to incorporate.

Add the couverture 2, mixing with a spatula.

Natur Emul can replace the emulsifying function of egg yolk in baked doughs. This makes it possible to enhance flavours such as, in this case, chocolate and nuts.

OSCAR ALBIÑANA

MANJARI 64 % AND PECAN GLAZE

300 g	Manjari 64 % Valrhona (at 45 °C) *(60%)*
150 g	Pecan paste Sosa *(30%)*
25 g	Olive oil *(5%)*
25 g	Whole pecan Sosa (chopped) *(5%)*

Mix the couverture, pecan paste and olive oil with the blender. Add the chopped pecans, mixing with a spatula.

RECIPE FOR 12 TARTLETS

WEIGHTS PER PIECE

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 out between 2 methacrylate rulers of 60 cm long and 8 mm high, placed 30 cm apart on a tray with a silicone mat. Remove the strips and bake at 120 °C for 27 minutes in a ventilated oven with the draught closed. Cool, remove the silicone mat and cut out 12 discs with a 7 cm diameter die. Set aside at room temperature (20 °C).

Prepare the sablée dough, roll out 700 g between 2 silicone mats to a thickness of 3 mm and freeze. Peel off the silicone mats, cut 12 discs with a 7 cm die and 2 cm wide strips. Place 12 perforated rings 8 cm in diameter and 2 cm high on a tray with a perforated silicone mat, line the walls with the strips and place the sablée discs on the bases. Gently push out the outline of the bases with your fingers so that they are perfectly joined to the walls and freeze. Bake at 120 °C for 40 minutes in a ventilated oven with an open vent. Cool, freeze and place a disc of financier in the bottom of the tartlets. Keep in the fridge.

Shape the leftover portion of sablée, spread evenly on a tray with baking paper, using a grid as a grater, and bake at 120 °C for 35 minutes in a ventilated oven with the vent open.

Cool, cut into pieces of about 10 x 10 mm and gently mix with 60 g of melted coconut oil. Set aside at room temperature (20 °C).

Prepare the crémeux, pour 25 g into the tartlets over the financier and freeze.

Prepare the jelly, dispense 10 g into 12 silicone moulds 4 cm in diameter and 2 cm high (SilikoMart model SF027) and freeze. When completely frozen, remove from the mould and keep in the freezer.

Prepare the pistachio mousse and fill half of 12 silicone moulds 6.5 cm in diameter and 2.5 cm high (SilikoMart model SF333) with pistachio mousse. Insert the jelly discs, finish filling the moulds with more mousse, smooth out and freeze.

Prepare the glaze and chill in the fridge for at least 4 hours.

Heat the glaze to 30 °C. Unmould the mousse discs, glaze, and place on the tartlets. Decorate with pieces of grated sablée around the mousse and place on bases.

PISTACHIO FINANCIER

189 g	Water (at 20 °C) *(27%)*
63 g	Pistachio paste Sosa *(9%)*
35 g	Sunflower oil *(5%)*
84 g	Sugar *(12%)*
3,5 g	Salt *(0,5%)*
3 g	**Flaxfiber Sosa** *(0,4%)*
140 g	Brown rice flour (sieved) *(20%)*
161 g	Pistachio flour Sosa (sieved) *(23%)*
14 g	Water-soluble natural mint green colouring powder Sosa (sieved) *(2%)*
7,5 g	Baking powder Sosa (sieved) *(1,1%)*

Mix the water, pistachio paste, sunflower oil, sugar, salt and Flaxfiber and emulsify intensively with the blender for 1 minute.

Mix the rice flour, pistachio flour, food colouring and baking powder and add to the previous mixture, working with a whisk.

In this vegan and gluten-free dough, the use of Flaxfiber helps us to create the financier structure and a perfect result that does not fall apart after baking.

ADRIANNA JAWORSKA

PISTACHIO SABLÉ

145 g	Water (at 20 °C) *(13,2%)*
187 g	Sugar *(17%)*
110 g	Deodorized coconut oil Bio Sosa (at 35 °C) *(10%)*
77 g	Sunflower oil *(7%)*
13 g	Water-soluble natural mint green colouring powder Sosa *(1,2%)*
11 g	**Natur Emul Sosa** *(1%)*
416 g	Brown rice flour *(37,8%)*
99 g	Pistachio flour Sosa *(9%)*
33 g	**Psyllium Sosa** *(3%)*
5,5 g	Baking powder Sosa *(0,5%)*
3,5 g	Salt *(0,3%)*

Mix the water, sugar, coconut oil, sunflower oil, colouring and Natur Emul and emulsify intensively with the blender for 1 minute.

Mix the previous preparation with the rest of the ingredients in the blender with the paddle attachment on first speed until a homogeneous texture is obtained.

Thanks to the use of Natur Emul and Psyllium we get a perfect texture in a vegan and gluten-free sablée. Natur Emul helps us to replace egg yolk as an emulsifying agent and Psyllium to give structure to a sablée made with gluten-free flours.

JORDI BORDAS

COCONUT CRÉMEUX

28 g	Sugar *(7%)*
12 g	**Inulin Cold Sosa** *(3%)*
3 g	Pectin Acid Free Sosa *(0,7%)*
356 g	Adamance coconut puree *(89%)*
1 g	**Flaxfiber Sosa** *(0,3%)*

Mix the sugar, inulin, and pectin.

Heat the puree to 30 °C in a saucepan, add the sugar mixture, stirring with a whisk, and heat to 85 °C, stirring constantly.

Mix the Flaxfiber and the previous preparation and emulsify intensively with the blender for 1 minute.

Acid Free pectin is an exclusive Sosa pectin that allows gelling non-acidic preparations providing a very creamy texture.

OSCAR ALBIÑANA

In this case, Flaxfiber serves both to create an emulsion and to give it additional stability, thanks to its great thickening capacity.

ADRIANNA JAWORSKA

BLACKCURRANT JELLY

28 g	**Oligofruct Sosa** *(15%)*
0,6 g	Guar gum Sosa *(0,3%)*
2,5 g	Pectin NH Sosa *(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 puree to 30 °C in a saucepan, add the Oligofruct mixture, stirring with a whisk, and heat to 85 °C, stirring constantly.

To make a blackcurrant jelly without added sugar, we opted for a sugar-free purée and Oligofruct. Thanks to this fiber, the jelly has sufficient sweetness and good stability, even when frozen/thawed.

ADRIANNA JAWORSKA

PISTACHIO MOUSSE

28 g	Sugar *(4%)*
14 g	Vegan Mousse Gelatine Sosa *(2%)*
342 g	Water 1 *(48,8%)*
154 g	Pistachio paste Sosa *(22%)*
28 g	Deodorized coconut oil Bio Sosa *(4%)*
3 g	**Flaxfiber Sosa** *(0,4%)*
84 g	Water 2 *(12%)*
2 g	Sojawhip Sosa *(0,3%)*
46 g	**Oligofruct Sosa** *(6,5%)*

Mix the sugar and Vegan Mousse Gelatine.

Heat the water 1 to 30 °C in a saucepan, add the sugar mixture, stirring with a whisk, and bring to the boil, stirring constantly.

Mix the pistachio paste, coconut oil, Flaxfiber and the previous preparation and emulsify intensively with the blender for 1 minute. Cool to 30-35 °C.

Whip the water 2 and Sojawhip for 6 minutes in the mixer on medium-high speed. Add the Oligofruct and whip for about 4 minutes more, until a light meringue is obtained, maintaining a temperature of about 30 °C throughout the process.

When the meringue is ready, stir in the previous preparation at 30-35 °C, working gently with a spatula.

Vegan Mousse Gelatine is a gelling agent that we have developed to replace animal gelatine in mousses. It provides a firm but soft texture at the same time and allows freezing while maintaining the texture when thawed.

OSCAR ALBIÑANA

Flaxfiber used both as an emulsifier and as thickener and stabiliser in this mousse, helps to create a spongy and soft texture, but with sufficient stability.

ADRIANNA JAWORSKA

PISTACHIO GLAZE

75 g	**Oligofruct Sosa** *(25%)*
15 g	**Inulin Cold Sosa** *(5%)*
1 g	Pectin Acid Free Sosa *(0,4%)*
0,6 g	Water-soluble natural mint green colouring powder Sosa *(0,2%)*
116 g	Water *(38,8%)*
90 g	Pistachio paste Sosa *(30%)*
1 g	**Natur Emul Sosa** *(0,4%)*
0,6 g	Salt *(0,2%)*

Mix Oligofruct, inulin, pectin, and colouring.

Heat the water to 30 °C in a saucepan, add the Oligofruct mixture, stirring with a whisk, and heat to 85 °C, stirring constantly.

Mix the pistachio paste, Natur Emul, salt and the previous preparation and emulsify intensively with the blender for 1 minute.

PATISSERIE / BAKERY

Problem	Recommended products	Solution
I want to reduce fat	**INULIN HOT** 	Replacement of some or all of the fat with Inulin Hot
I want to reduce sweetness	**OLIGOFRUCT OR INULIN COLD** 	Substitute part of the sugar (Inulin Cold) or all (Oligofruct)
I want to improve the texture when defrosting or solve the syneresis problem.	**FLAXFIBER** 	Add Flaxfiber (or substitute Xanthan if already used in the recipe).
I want to improve the emulsion or replace emulsifying agent	**NATUR EMUL AND FLAXFIBER** 	Substitute egg yolk or another emulsifier
I want to replace gluten	**PSYLLIUM AND FLAXFIBER** 	Substitution of wheat flour by Psyllium in combination with gluten-free starches and Flaxfiber

The relationship we have with the professionals of the pastry industry in different parts of the world allows us to detect the most common problems that arise in the elaborations.

In the following table, we have selected 5 of the most frequently asked questions and propose possible solutions with our range of Fibers.

OSCAR ALBIÑANA

	Meringue	Mousses	Doughs	Glazes	Creams	Ice Cream & Sorbets
		✓			✓	✓
	✓	✓	✓	✓	✓	✓
		✓		✓	✓	✓
		✓		✓	✓	✓
			✓			

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