FUNDAMENTALS

PRODUCTS | USES | RECIPES

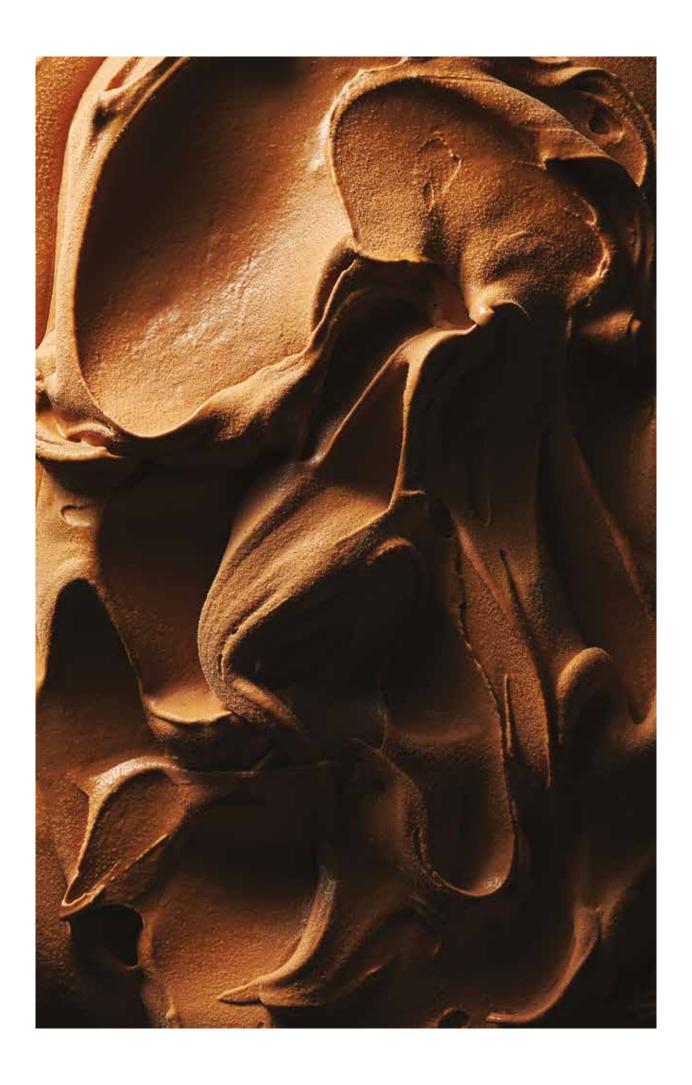




THE ESSENTIALS











DEAR PARTNERS, THIS BOOKLET IS YOUR ESSENTIAL GUIDE!

Italy, the birthplace of gelato, is renowned for being the birthplace of a culinary tradition that is loved the world over. More than just an ice cream, gelato is the embodiment of an art combining history and savoir-faire. Using artisan techniques handed down from generation to generation, Italy's master ice cream makers focus on balanced flavors, creamy texture and high-quality ingredients.

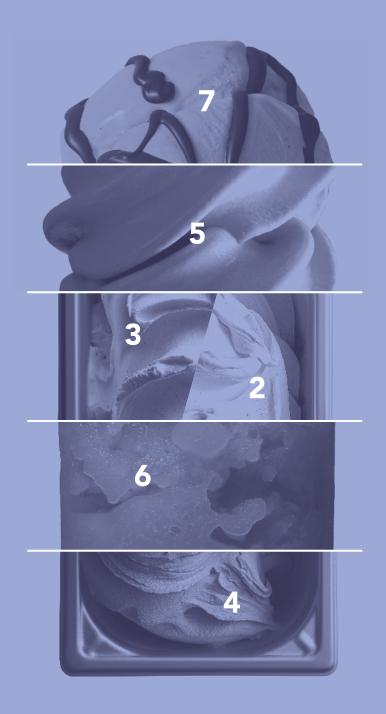
To showcase this heritage, **Valrhona Selection** has been working for several years with **two great Italian ice cream chefs, Andrea Bandiera and Paolo Brunelli**, famed for their technical skills and creativity, to offer exclusive gelato recipes.

The fruit of this partnership is an inspiring technical booklet, a real go-to for professionals in search of innovation. This booklet contains balanced, ready-to-use gelato recipes, as well as all the basics for creating your own.

In line with the Reasoned Gourmandise approach launched by Valrhona, each recipe illustrates a precise control of quantities and a meticulous use of carefully selected ingredients to offer the right flavors in the right proportions.

See you soon!





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THE CHEFS AND THEIR PHILOSOPHY





Andrea Bandiera





Andrea Bandiera, a chef with a passion for ingredient technology and authenticity.

After an initial career in IT, it was in 2004, following a trip to Sicily, that he was catapulted into the fascinating world of artisanal ice-cream making.

Since then, his mission has been simple: **tradition**, **quality and creativity**.

Driven by this mission, Andrea opened "Cremeria Scirocco", an ice cream parlor and laboratory of bold, refined flavors in Bologna.

Forget ready-to-use bases. Here, every ice cream is the result of in-depth research: bases, ingredient chemistry and a rigorous selection of the best locally-sourced raw materials.

His creativity also led him to work in the world of savory ice cream, and to offer sweet delights, Sicilian granitas and ice cream popsicles. Passionate about authentic flavor and culinary innovation, he brings these 2 concepts together in his store, and since 2005 has been making uncompromising ice creams free from hydrogenated fats, synthetic emulsifiers, artificial colors and flavors.

At the helm of Cremeria Scirocco, Andrea has created the kingdom of artisan ice cream in Bologna.

In 2007 and 2014, his ice cream parlor won awards and was voted the best "Gelateria" in Bologna by the prestigious "Gruppo Gastronomico Bolognese."

Recognition and Awards

2017 TO 2023: THE GAMBERO ROSSO "TRE CONI" AWARD, SPECIAL MENTION FOR BEST GOURMET FLAVOR IN ITALY (2018).

2018: "BEST GOURMET ICE CREAM".

2023: "INTERNATIONAL BERGAMOT AMBASSADOR".

2023: "INNOVATION" AWARD FOR HIS OUTSTANDING CONTRIBUTION TO THE CREATION OF A REVOLUTIONARY SOFTWARE PACKAGE FOR MANAGING RECIPES AND LABORATORIES (WWW.READYTGO.COM).

Paolo Brunelli





For Paolo Brunelli, creating ice cream is not just about manufacturing, it is also an artistic process.

Minute attention to detail, high-quality ingredients and in-store presentation all help to create an unforgettable taste experience. His meticulous approach and distinctive style take your taste buds on a new adventure every time.

Paolo Brunelli is present in three locations: Agugliano, where he started out and where his family still runs a hotel; Senigallia, a seaside town he has long loved, where he opened his first ice cream parlor; and Marzocca, where he recently opened a new space to give his creativity free rein.

In each of these locations, he fuses music, painting, design and literature in his creations. His abundant experiments and partnerships mean that all of his ice cream cones and chocolate bonbons are packed with the experience he has built up over the years, and offer an explosion of taste treasures on the tongue.

Recognition and Awards

SINCE 2016, HE HAS BEEN A FOUNDING MEMBER OF THE ITALIAN ASSOCIATION OF TASTE AMBASSADORS.

SINCE 2017, HE HAS BEEN PRESIDENT AND FOUNDING MEMBER OF THE "COMPAGNIA DEI GELATIERI" ASSOCIATION.

IN 2017 AND 2018, HE WAS VOTED ITALY'S BEST ARTISAN ICE CREAM MAKER BY THE WEBSITE "DISSAPORE".

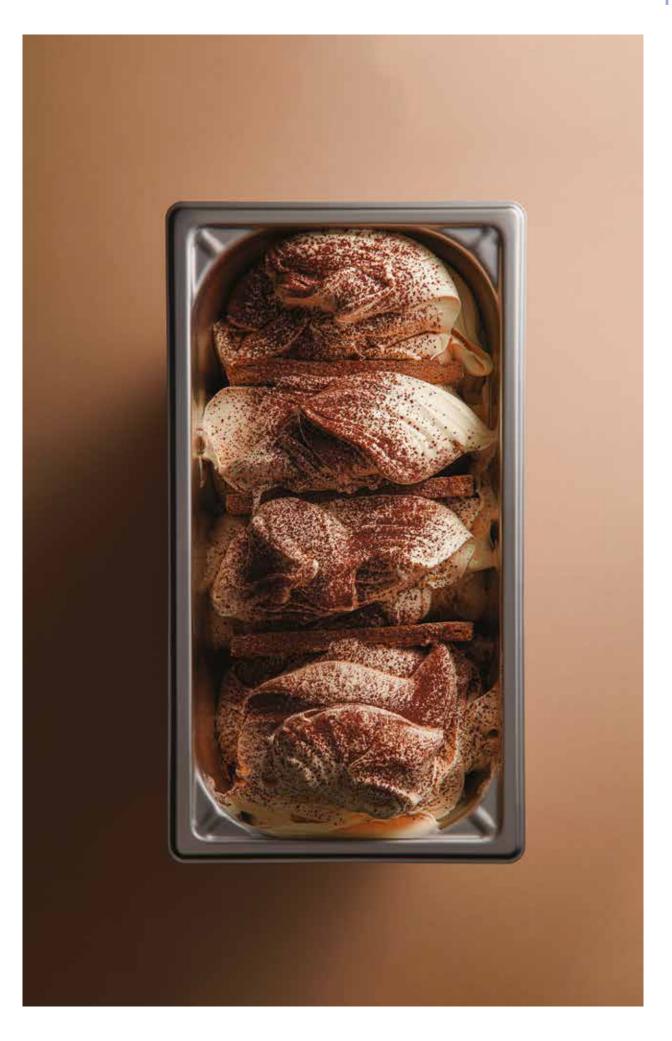
FROM 2017 TO 2023, HE RECEIVED THE GAMBERO ROSSO "TRE CONI" AWARD, WITH A SPECIAL MENTION FOR THE BEST CHOCOLATE ICE CREAM FLAVOR IN ITALY.

IN 2020, HE WAS AWARDED THE TITLE OF "MAM", MAÎTRE D'ART ET MÉTIERS.

IN 2022, HE WON THE GAMBERO ROSSO "INNOVATION AWARD".

IN 2023, HE WAS NAMED "COMMUNICATION AMBASSADOR" BY PUNTO ITALY MAGAZINE.

www.paolobrunelli.me





Ice cream is a magical creation

It is created by combining mathematical calculations and pleasure. It captures flavors at ten degrees Fahrenheit (minus twelve degrees Celsius) and changes consistency on contact with air fascinating indeed. It is a popular product and, at the same time, lends itself to bold, visionary combinations.

It is changing shape and role: officially the dessert of the future, because it provides the essential, refreshing, sweet note at the end of a meal. It is eaten with the breakfast brioche, becomes the filling in a cookie or an iced cake... Or it is served on a dessert trolley to celebrate a jewel of Italian tradition that is back in vogue.

Without air, water and sugar, there is no ice cream

But after that, a whole world of ingredients can be used.

From comfort foods like fresh milk, cream, egg yolk, chocolate and seasonal fruit, to vegetables and herbal drinks.

With gourmet ice cream, the boundaries between sweet and savory are definitively swept away, and with modern ice cream, the same goes for the boundaries between ice cream and fine cuisine.

Fermented mushrooms, roots, salted or fried meats, sour or bitter jellies are combined with ice cream in cheeky freedom.

Italian ice cream has the creamiest texture of them all. This is one of the features that places it on the Made in Italy podium and sets it apart from other industrial methods and products.

The origin of perfect consistency lies in raw materials being mathematically balanced. A millimetric balance between solids and liquids, which starts with writing an impeccable recipe and ends in the churner.

The ice cream business is growing at an impressive rate.

The last twenty years have seen recipes become "lighter" with the use of healthier ingredients.

New taste expectations have emerged, production formats have evolved, and consumption has too.

The traditional dessert trolley now exists only as a symbolic adornment, and the typically family-run businesses that open in May and close in September are disappearing day by day. A new atmosphere, a new entrepreneurial style and, above all, a new concept of ice cream, are obliging stores themselves to change, now opening all year round, where ice cream is combined with pastries, chocolate, bakery and catering.

Sorbet has a particular identity in this context: although there are no regulations which define it precisely, it is a well-established tradition distinguished from ice cream by the total absence of animal products.

Originality versus industry rather than craftsmanship versus industry

The concept of artisanal ice cream is a confusing one: to date, there are no specifications governing it, and no clear boundaries.

Is an ice cream artisanal simply because of the choice of fresh ingredients? Or because it has a limited production run? Or because the ice cream factory is run by a Master, who is on site? There is no exact answer.

In fact, all we need to do is change our perspective and define craftsmanship as opposed to the industrial process, which tends towards standardization and uniformity. Originality, uniqueness, flexibility and imperfection are what make sincere and passionate ice cream makers. They work in laboratories where precision and technology reign, but where inspiration, history, experimentation and mistakes also have their place.



So, according to this definition of the artisan, to the blend of air, sugar, chocolate or fruit, the ice-cream maker adds his know-how, inventiveness, geographical roots, sensitivity (musical for Paolo) and personal history.

Valrhona Selection and chefs

Working for Valrhona in the Italian market for over 10 years, Valrhona Selection showcases its Italian ice cream expertise with chefs on the international stage.

The products are sustainable, the approach is based on sharing knowledge and culture, the relationships with producers are direct and the quality of the processes is guaranteed.

In practice, the focus on essence pursued by Andrea Bandiera and Paolo Brunelli is witnessing the total disappearance of cocoa powder use: this is challenging for Italian palates, because it is one of childhood's best-loved flavors.

Ice cream after ice cream, test after test, the use of Valrhona couvertures has proved indispensable in the world of artisanal Italian ice cream, revealing as they do the true taste of the chocolate, the authentic perception of a terroir and a faithful color.

The choice of ingredients is becoming increasingly selective, and all the Valrhona Selection brands are expanding the possibilities: from couverture chocolate to vanilla, from fruit-based technical ingredients to decorations.

This means that gelato is no longer just a dessert, but a true taste experience, the expression of respectful choices and raw materials of exceptional quality.



"Our constant search for new frontiers in technology and the creation of extraordinary ice creams continue to set us apart from industry".

01

TECHNOLOGY & INGREDIENTS

Explore the world of gelato ingredients and learn how to balance them yourself!



The role of ingredient families

LIQUIDS

The role of water, which can be incorporated into the mixture in different liquid forms (milk, cream, water, egg yolks, vegetable drinks, fruit purées), is to hydrate all of the dry ingredients such as sugars, proteins and stabilizers. This results in a homogeneous, uniform mixture, ready to be churned.



NOTE: For all liquids, including vegetable drinks and fruit purées, check the product data sheet or list of ingredients to calculate the percentage of solids and liquids.

01

AIR

Air is a key ingredient in the structure of ice cream.

IMPACT ON FLAVOR

+ Air = - Flavor

IMPACT ON CREAMINESS

+ Air = + Spatulability

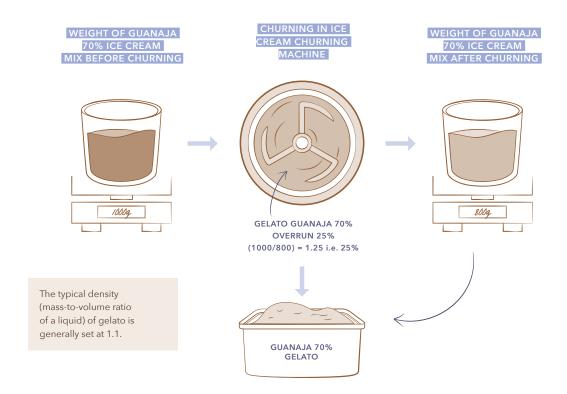
IMPACT ON PROFITABILITY

+ Air = + Margin

Artisanal ice cream generally contains between 25 and 35% air, incorporated during the churning phase. Air is essential to the consistency of gelato: it adds creaminess. With low air content, the ice cream will be colder and harder. Conversely, a higher air content will make the gelato softer, because the gelato crystals are spaced further apart.

Overrun calculation

Solution 1





Solution 2

Air, as we mentioned, is another key ingredient in gelato. To incorporate air during the churning process, the preparation must have a sufficiently viscous consistency: if the mixture is too liquid, the air will not be retained.

Example: Ice cream density = 1.1
Weight of mix = 80g / Weight of ice cream = 68g

$$\frac{(1.1 \times 80) - 68}{68} = \frac{88 - 68}{68} = 0.29 = 29\%$$

COLD



Cold is generated by the type of churn used.

A cooling machine (churn) is required to produce ice cream.

The role of the cold supplied by the churn is to freeze the free liquid portion.

SOLIDS (DRY EXTRACTS)

Solids are all non-liquid ingredients contained in the mixture.

They include:

Sugars Fiber
Fats Stabilizers
Proteins Emulsifiers

In general, the role of solids is to absorb and control the free water present in the mixture, to determine the final texture of the gelato by having an effect on the overrun (for example, the protein content of the gelato), to help regulate the AFP of the recipe and to transmit a more or less intense sensation of cold when eaten.







FAT



PROTEINS



FIBERS



STABILIZERS



EMULSIFIERS

Sugars and fibers

Liquids are essential to the structure of gelato. Controlling water content is key in gelato production, because it plays a crucial role in the product's structure and texture. However, too much free water can cause various problems such as syneresis (water release) and non-optimal gelato structure. To control water content in gelato, it must be balanced with other ingredients such as sugars and fiber.

Technical data on sugars and fibers

INGREDIENTS	DRY EXTRACT	AFP*	SP
SUCROSE	100%	100%	100%
TREHALOSE	98%	98%	45%
DEXTROSE MONOHYDRATE	92%	173%	64%
LIQUID INVERT SUGAR	73.5%	140%	120%
CREMSUCRE	81%	154%	110%
GLUCOSE DE33	95%	56%	24%
HONEY	80%	146%	130%
GLUCOSE DE40	79%	73%	41%
GLUCOSE DE60	81%	96%	52%
MALTODEXTRIN 18DE	95%	22%	9%
COLD INULIN	95%	39%	14%
HOTINULIN	99.5%	0%	0%

NO WATER CONTENT CONTROL	LITTLE WATER CONTENT CONTROL	MODERATE WATER CONTENT CONTROL	STRONG WATER CONTENT CONTROL
0			
0			
0			
0			
0			
	+		
	00		
	+		
	+		
		+	
			+
			++

Cremsucre = Invert sugar paste

Calculating AFP (Anti-Freezing Power)

As with sweetening power, the reference is sucrose. We will establish the AFP of different sugars (or other ingredients) by comparing them to sucrose.

To establish the AFP of a given sugar, we divide the molecular weight of sucrose by the molecular weight (molar mass) of the sugar concerned.

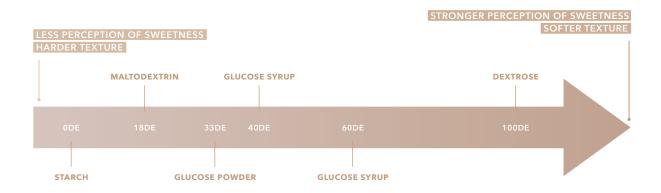
Molecular weight of sucrose = 342.3 (g/mol)

<u>Example</u>: let's calculate the AFP of dextrose monohydrate ($C^6 H \cdot 120^6 \cdot H^2O$) which has a molecular weight of 198.17 (g/mol), assuming it contains 8% moisture.

^{*}AFP is not calculated on dry extract alone, but on total weight.

Sugars and fibers

Focus on starch-derived sugars



Anti-freezing power (AFP)

Anti-freezing power (AFP) refers to a sugar's ability to reduce a mixture's freezing point.

Pure water freezes at 32°F (0°C). Adding water-bound sugars to the solution stops the water from crystallizing, lowering the temperature at which ice crystals form.

The serving temperature is linked to the AFP: the lower the serving temperature, the higher the AFP must be if we want a soft texture.

Sweetening power (SP or POD)

Sweetening power represents the perception of sweetness provided by one chemical compound in relation to another. Sweetness is defined in relation to a reference index, generally a sucrose solution, which has a sweetening power of 100 by definition.

The SP value (POD) is not an absolute value; it depends on the interaction of the sugar with the other ingredients in the recipe. In chocolate, for example, bitterness counterbalances the perception of sweetness, as does the acidity of a fruit.



^{*} Cremsucre paste = invert sugar paste

^{**} Sucrose = reference sugar for sweetening power (SP or POD)

The role of the main sugars and fibers



CREMSUCRE (INVERT SUGAR PASTE)

Invert sugar adds a lot of smoothness.
But it has a very high sweetening power,
so it should be used sparingly. Too much
will result in a sticky, pasty texture,
not very pleasant in a frozen dessert.
The recommended amount is between
2% and 5%.



DEXTROSE

Dextrose improves the texture of mixes and lowers the freezing point.

Too much can make it feel very cold.



DRIED GLUCOSE

Dried glucose or glucose powder softens the texture of the ice cream.



GLUCOSE SYRUP DE60

Glucose syrup DE60 has good hygroscopic (water absorption) properties; it provides a dry extract, and has a low sweetening power.



TREHALOSE

Trehalose is a sugar derived from tapioca starch. It has a low sweetening power, and can be used as a bulking agent.



MALTITOL

Maltitol polyol is not a carbohydrate (it contains 2 calories rather than 4). It lightens the color of the final product and has a sweetening power similar to sucrose. It should not make up more than 5% of the total weight.



MALTODEXTRIN

Maltodextrin is derived from a starch (usually corn). Starch chains are enzymatically shortened. It softens and increases spatulability. An excess causes color change.

Do not exceed 5% in your recipes.



COLD INULIN*

Cold inulin, extracted from chicory root, creates a creamy mouthfeel and provides a dry extract with low sweetening power. It should be added at a maximum of 5% of the total weight of the recipe. Used as a partial sugar substitute, it controls free water, reduces ice crystal formation and increases the product's resistance to melting.



HOT INULIN*

Hot inulin, extracted from chicory root, is used to substitute fats and guarantees greater texturizing power than cold inulin in mixes.



Make sure to check the legislation in force in your country concerning the use of sugars and fibers.

^{*} Inulin, whether hot or cold, is a fiber that is not absorbed by the body. It should not make up more than 5% of the total weight of the recipe.

Stabilizers and emulsifiers

Stabilizers are often used to adjust preparation viscosity. These are thickeners (guar gum, carob gum, etc.) or emulsifiers (Natur Emul, etc.). Stabilizers are all the more important when the recipe is low in fiber or when acidic fruits are used (lemon, passion fruit, etc.).

Stabilizers also play an important role in preservation: they slow the formation of ice crystals, ensuring stability over time.

INGREDIENTS	LITTLE WATER CONTENT CONTROL	STRONG WATER CONTENT CONTROL
GUAR GUM [E412]		+++
XANTHAN GUM [E415]		+++
CAROB GUM [E410]		(+)
PSYLLIUM	+++	
CITRUS FIBER (NATUR EMUL)	(+)	
FLAXFIBER	+++	

Combined stabilizer

PROFIBER (FLAXFIBER, PSYLLIUM, NATUR EMUL)	+++	
ORGANIC PROCREMA 5 (CAROB [E410], XANTHAN [E415])		+++



Galactomannan family. Dispersible in hot or cold water. Stabilizing and emulsifying properties. Helps stabilize water/fat emulsions. A denser, more compact texture.



Soluble in cold water, suitable for all types of use (alcohols, acids, etc.) Extremely elastic texture.



Soluble in hot water, insoluble in alcoholic media. Does not work in acidic environments. Moderately compact texture



PSYLLIUM

Partially soluble in water, creates a viscous compound due to high fiber content. Stabilizing and emulsifying properties. Helps stabilize water/fat emulsions. More melting texture.



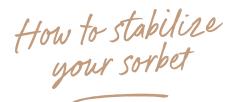
CITRUS FIBER (NATUR EMUL)

Dispersible in hot water, cold water and fats. Helps stabilize recipes by reducing fat content. It acts as a stabilizer and emulsifier, making it a popular choice for maintaining product stability during storage.



Flax fiber mixes easily with hot or cold water, and has stabilizing and emulsifying properties. It helps stabilize water- and fat-based emulsions.











SORBET WITH

FAT CONTENT

SORBET WITHOUT **FAT CONTENT**

SOLUTION 1

SOLUTION 2



PROFIBER



ORGANIC PROCREMA 5

SOLUTION 1



PROFIBER

PROCREMA 5



ORGANIC + NATUR EMUL

SOLUTION 3

OR



FLAXFIBER (+) 0.2 / 0.3%



PSYLLIUM 0.1 / 0.2%

SOLUTION 3



0.2%



0.1%



FLAXFIBER + PSYLLIUM + NATUR EMUL

AMOUNT

0.3 - 0.5% OF TOTAL RECIPE WEIGHT 3 / 5G PER KG

The amount of stabilizer varies depending on the amount of water or fiber in the recipe. We recommend a minimum or maximum amount per liter.

AMOUNT

0.3 / 0.5% OF TOTAL RECIPE WEIGHT 3 / 5G PER KG



If possible, we recommend using Profiber for both solutions.

How to stabilize your milk and egg bases



MILK BASE

SOLUTION 1 SOLUTION 2



PROFIBER



ORGANIC PROCREMA 5

SOLUTION 3

OR



FLAXFIBER (+) 0.2%





0.1%



PSYLLIUM + NATUR EMUL 0.1 / 0.2%

AMOUNT

0.3 / 0.5% OF TOTAL RECIPE WEIGHT 3 / 5G PER KG



EGG BASE

SOLUTION 1



PROFIBER



SOLUTION 2

ORGANIC PROCREMA 5

SOLUTION 3

OR



FLAXFIBER + 0.2 / 0.3%



PSYLLIUM 0.1 / 0.2%

AMOUNT

0.2 / 0.4% OF TOTAL RECIPE WEIGHT 2 / 4G PER KG

How to stabilize your vegan ice cream and granitas





SOLUTION 1



PROFIBER

SOLUTION 2



PROCREMA 5 0.2 / 0.3%



ORGANIC + NATUR EMUL 0.2 / 0.3%

Granitas do not need to be stabilized as they are designed for direct storage.

> The use of stabilizers may be considered for alcohol-based granitas.

SOLUTION 3

OR



FLAXFIBER 0.2%



0.1%



PSYLLIUM (+) NATUR EMUL 0.1 / 0.2%

AMOUNT

0.3 / 0.5% OF TOTAL RECIPE WEIGHT 3 / 5G PER KG

How to stabilize your soft serves









SOFT SERVE WITHOUT

FAT CONTENT

SOLUTION 1



PROFIBER

SOLUTION 2



ORGANIC PROCREMA 5

SOFT SERVE WITH

FAT CONTENT

SOLUTION 1



PROFIBER



SOLUTION 2

ORGANIC + NATUR EMUL PROCREMA 5 0.2%

SOLUTION 3

OR



FLAXFIBER (+) PSYLLIUM



SOLUTION 3

OR





0.1%



FLAXFIBER + PSYLLIUM + NATUR EMUL 0.1 / 0.2%

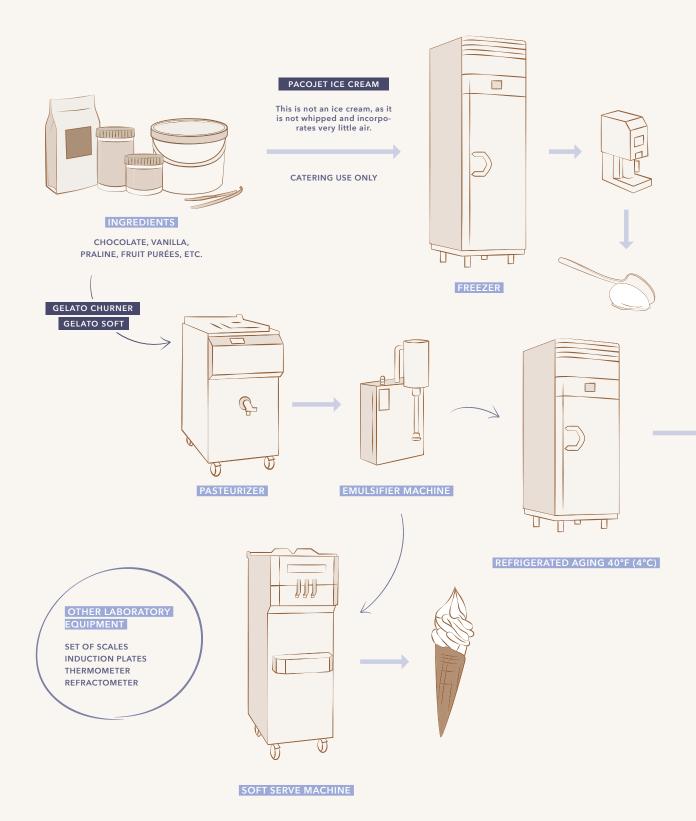
AMOUNT

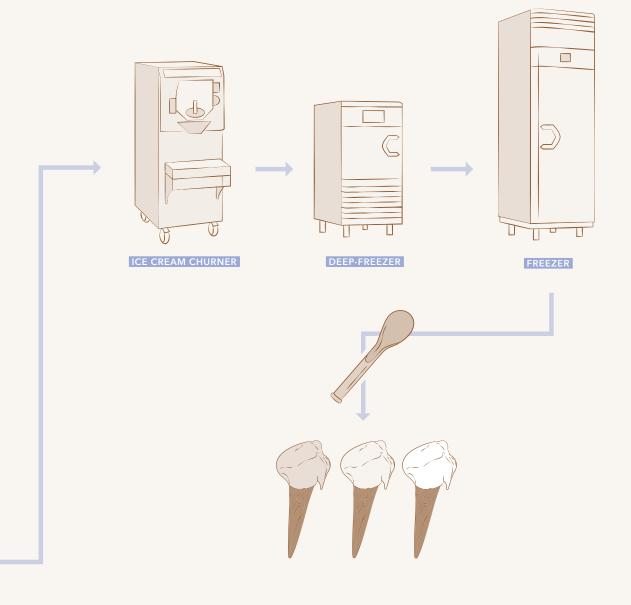
0.3 / 0.5% OF TOTAL RECIPE WEIGHT 3 / 5G PER KG

AMOUNT

0.3 / 0.5% OF TOTAL RECIPE WEIGHT 3 / 5G PER KG.

The different stages in making gelato and sorbets





DIFFERENT DISPLAYS

GELATO IS USUALLY PRESENTED IN TWO WAYS





CLOSED TUB DISPLAY

By contrast, the closed tub display unit keeps storage temperature more constant, and reduces drying out, oxidation and contamination of the gelato.

Find out more about the different machines and their technologies

Pasteurizer

A pasteurizer is a machine used to mix the different ingredients in a recipe by heating them to the desired pasteurization temperature. The final pasteurization temperature depends on the type of process you wish to use:

- · High at 185°F (85°C) 1 minute
- Medium at 170°F (75°C) 10/15 minutes
- Low at 150°F (65°C) for 25/30 minutes

Lower temperatures have less impact on volatile or delicate flavors (e.g. creams, spices), and better preserve the organoleptic qualities of ingredients. The pasteurizer then cools the mixture quickly to 40°F (4°C), ready for storage or serving.

Emulsifier machine

An emulsifier is a high-speed blender designed to emulsify the mixture by reducing the size of fat globules. This results in a more stable product, with better overrun.

Refrigerator (or pasteurizer kept at 40°F (4°C))

Refrigeration allows the mix to age for 12 hours, allowing the stabilizers to be hydrated and reach optimum efficiency. Aging can be carried out directly in the pasteurizer.

Ice cream churner

The ice cream churner chills and blends the mix, freezing the liquids and incorporating air into the gelato. There are different types of ice cream churners, in different sizes and operating differently, including the more common horizontal cylinder models and vertical arm machines.

Blast chiller

The blast chiller enables products to be cooled very quickly to very low temperatures (down to - $40^{\circ}F$ (- $40^{\circ}C$)). For ice creams, it should be used after taking the mixture out of the churning machine to ensure optimum stability and structure. It stabilizes some of the free water and keeps the overrun intact.

Freezer

Putting the product in the freezer at sub-zero temperature completes the aging process so that it can then be stored. The product is kept at the same temperature as the display unit (usually 10°F (-12°C) for a few days (usually 2/3 days) to finalize this process. If longer storage is required, it can be kept at 0°F (-18°C) for over two weeks.

Soft serve machine

Soft serve machines serve the product directly into the cone or bowl. Unlike traditional freezers, they offer greater overrun, making the ice cream creamier. Mixes must be specially balanced for this application.

PACOJET, DEDICATED TO CATERING

The Pacojet is a machine which, thanks to a special high rotation speed blade block, is able to make frozen products creamy. The Pacojet produces a structure similar to that of ice cream, but without incorporating air.

2 production methods

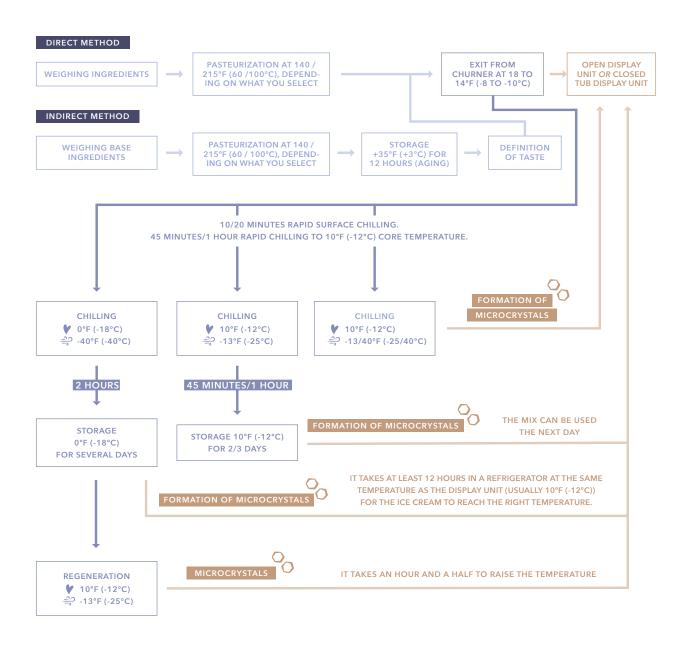
How to produce and preserve your ice creams

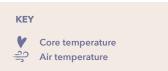
DIRECT METHOD

BALANCING AND PRODUCING A RECIPE FOR EACH FLAVOR AND/OR PRODUCT.

INDIRECT METHOD

PRODUCING A SINGLE PASTEURIZED BASE (MILK BASE, EGG BASE, CHOCOLATE BASE)
AND FLAVORING DEPENDING ON FLAVORS.







Which approach to take, which ingredients to add, what to adjust, and what to control



CHOOSE YOUR TYPE OF GELATO



STEP 2

CHOOSE YOUR FLAVORING INGREDIENT





BALANCE YOUR RECIPE



CONTROL VALUES



STABILIZERS



LIQUIDS



SUGARS





TOO LOW		OK	TOO HIGH		
+12	12/10	[16728]	22/25	+25	
44	476	\$67.52)	12715	- 10	
4.8	678	(8712)	12735	-18	
125	1103/3	(1/5)	576	1.00	
w 112	32/36	[\$67A55	185750	> 90	
1986	530000	1000000	10/22	-39	

Direct method

How to balance your gelato and sorbets

See the table below for all the parameters and indicators you need for adjusting your gelato and sorbet recipes to your preferences.

You'll know at a glance whether your recipe is balanced or not!

Parameters according to type of ice cream or sorbet

SUGARS <12 12/16 [16/22] 22/25 >25 FATS <0 0/0 [0/10] 10/15 >15 OTHER DRY EXTRACTS <0.5 0.5/1 [1/5] 5/6 >6 TOTAL DRY EXTRACT <28 28/32 [32/42] 42/45 >45 SP <12 12/15 [15/9] 19/22 >22 AFP / SERVING TEMPERATURE <18(-8) 18/12(-8/-11) [12/9(-11/-13]] 9/3(-13/-16) >3 (-16 FATS <0.5 0.5/1 [1/10] 10/15 >15 MSNF* <25 25/28 [28/40] 40/42 >42 FATS <12 12/15 [15/21] 21/25 >25 TOTAL DRY EXTRACT <25 25/28 [28/40] 40/42 >42 SP <12 12/15 [15/11] 19/22 >22 AFP / SERVING TEMPERATURE <18(-8) 18/12(-8/-11) [12/9(-11/-13]] 9/3(-13/-16) >3 (-16 CHOCOLATE SORBET TOTAL DRY EXTRACTS <12 12/16 [16/22] 22/25 >25 FATS <2 2/4 [4/10] 10/15 >15 OTHER DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 TOTAL DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 SP <12 12/15 [15/19] 19/22 >22 TOTAL DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 SP <12 12/15 [15/19] 19/22 >22	f ice cream or sor	bet					
FATS <4 4 / 6 16 / 12 12 / 15 > 15 MSNF <6 6 / 8 18 / 12 12 / 15 > 15 MSNF <6 6 / 8 18 / 12 12 / 15 > 15 MSNF <6 6 / 8 18 / 12 12 / 15 > 15 OTHER DRY EXTRACTS <0.5 0.5 / 1 11 / 5 5 / 6 > 6 TOTAL DRY EXTRACT <32 32 / 36 (36 / 45) 45 / 50 > 50 SP <12 12 / 15 (15 / 19) 19 / 22 > 22 AFP / SERVING TEMPERATURE <18 (-8) 18 / 12 (-8 / -11) 11 / 12 / 13 / 14 / 6 > 3 (-16 / -12) SUGARS <12 12 / 16 (16 / 22) 22 / 25 > 25 FATS <0 0 / 0 (0 / 10) 10 / 15 > 15 OTHER DRY EXTRACT <28 28 / 32 (32 / 42) 42 / 45 > 45 SP <12 12 / 15 (15 / 9) 19 / 22 > 22 AFP / SERVING TEMPERATURE <18 (-8) 18 / 12 (-8 / -11) 11 / 12 / 17 / 13 > 3 (-16 / -12) FATS <0.5 0.5 / 1 (1 / 10) 10 / 15 > 15 MSNF <25 25 / 28 (28 / 40) 40 / 42 > 42 FATS <0.5 0.5 / 1 (1 / 10) 10 / 15 > 15 MSNF <25 25 / 28 (28 / 40) 40 / 42 > 42 SP <12 12 / 15 (15 / 71) 19 / 22 > 22 AFP / SERVING TEMPERATURE <18 (-8) 18 / 12 (-8 / -11) 12 / 12 / 12 / 12 > 25 TOTAL DRY EXTRACT <25 25 / 28 (28 / 40) 40 / 42 > 42 SP <12 12 / 15 (15 / 71) 19 / 22 > 22 AFP / SERVING TEMPERATURE <18 (-8) 18 / 12 (-8 / -11) 12 / 12 / 12 > 25 TOTAL DRY EXTRACT <25 25 / 28 (28 / 40) 40 / 42 > 42 SP <12 12 / 15 (15 / 71) 19 / 22 > 22 AFP / SERVING TEMPERATURE <18 (-8) 18 / 12 (-8 / -11) 12 / 12 / 13 > 3 (-16 / -11) 10 / 15 > 15 CHOCOLATE SORBET SUGARS <12 12 / 16 (16 / 22) 22 / 25 > 25 FATS <2 2 / 4 (-10) 10 / 15 > 15 OTHER DRY EXTRACTS <0.5 0.5 / 2 (27 / 7) 7 / 10 > 10 TOTAL DRY EXTRACTS <0.5 0.5 / 2 (27 / 7) 7 / 10 > 10 TOTAL DRY EXTRACTS <0.5 0.5 / 2 (27 / 7) 7 / 10 > 10 TOTAL DRY EXTRACTS <0.5 0.5 / 2 (27 / 7) 7 / 10 > 10 TOTAL DRY EXTRACTS <0.5 0.5 / 2 (27 / 7) 7 / 10			тоо	LOW	ОК	тоо	HIGH
MIN. BASED ICE CREAM OTHER DRY EXTRACTS		SUGARS	< 12	12 / 16	[16 / 22]	22 / 25	> 25
MILK-BASED ICE CREAM		FATS	< 4	4/6	[6 / 12]	12 / 15	> 15
TOTAL DRY EXTRACT SP		MSNF	< 6	6/8	[8 / 12]	12 / 15	> 15
SP <12 12/15 115/19 19/22 >22 AFP / SERVING TEMPERATURE <18 (-8) 18/12(8/-11) 12/9(11/-13) 9/3(13/-16) > 3 (-16 SUGARS <12 12/16 [16/22] 22/25 >25 FATS <0 0/0 [0/10] 10/15 >15 OTHER DRY EXTRACTS <0.5 0.5/1 [1/5] 5/6 >6 TOTAL DRY EXTRACT <28 28/32 [32/42] 42/45 >45 SP <12 12/15 [15/9] 19/22 >22 AFP / SERVING TEMPERATURE <18 (-8) 18/12(8/-11) [12/9(11/-13)] 9/3(13/-16) > 3 (-16 FATS <0.5 0.5/1 [1/10] 10/15 >15 MSNFP <25 25/28 [28/40] 40/42 >42 FATS <0.5 0.5/1 [1/10] 10/15 >15 MSNFP <25 25/28 [28/40] 40/42 >42 SP <12 12/15 [15/9] 19/22 >22 AFP / SERVING TEMPERATURE <18 (-8) 18/12(8/-11) [12/9(11/-13)] 9/3(13/-16) >3 (-16 CHOCOLATE SORBET SUGARS <12 12/15 [15/19] 19/22 >22 TOTAL DRY EXTRACT <25 25/28 [28/40] 40/42 >42 SP <12 12/15 [15/19] 19/22 >22 TOTAL DRY EXTRACTS <12 12/16 [16/22] 22/25 >25 FATS <2 2/4 [4/10] 10/15 >15 OTHER DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 TOTAL DRY EXTRACT <32 32/36 [36/45] 45/50 >50 SP <12 12/15 [15/19] 19/22 >22	MILK-BASED ICE CREAM	OTHER DRY EXTRACTS	< 0.5	0.5 / 1	[1/5]	5/6	> 6
SUGARS 18 (-8) 18 /12 (-8 /-11) 12 /9 (-11 /-13) 9 /3 (-13 /-16) > 3 (-16 /-12)		TOTAL DRY EXTRACT	< 32	32 / 36	[36 / 45]	45 / 50	> 50
SUGARS <12 12/16 [16/22] 22/25 >25 FATS <0 0/0 [0/10] 10/15 >15 OTHER DRY EXTRACTS <0.5 0.5/1 [1/5] 5/6 >6 TOTAL DRY EXTRACT <28 28/32 [32/42] 42/45 >45 SP <12 12/15 [15/9] 19/22 >22 AFP / SERVING TEMPERATURE <18(-8) 18/12(8/-11) [12/9(-11/-13]] 9/3(-13/-16) >3 (-16 FATS <0.5 0.5/1 [1/10] 10/15 >15 MSNFP <25 25/28 [28/40] 40/42 >42 FATS <0.5 0.5/1 [1/10] 10/15 >15 MSNFP <25 25/28 [28/40] 40/42 >42 SP <12 12/15 [15/21] 21/25 >25 TOTAL DRY EXTRACT <25 25/28 [28/40] 40/42 >42 SP <12 12/15 [15/19] 19/22 >22 AFP / SERVING TEMPERATURE <18(-8) 18/12(8/-11) [12/9(-11/-13]] 9/3(-13/-16) >3 (-16 CHOCOLATE SORBET OTHER DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 TOTAL DRY EXTRACTS <0.5 0.5/2 [15/19] 19/22 >22 SP <12 12/15 [15/19] 19/22 >22 TOTAL DRY EXTRACTS <0.5 0.5/2 [15/19] 19/22 >22 TOTAL DRY EXTRACTS <0.5 0.5/2 [15/19] 19/22 >22 TOTAL DRY EXTRACTS <0.5 0.5/2 [15/19] 19/22 >22 SP <12 12/15 [15/19] 19/22 >22		SP	< 12	12 / 15	[15 / 19]	19 / 22	> 22
FATS		AFP / SERVING TEMPERATURE	< 18 (-8)	18 / 12 (-8 / -11)	[12/9(-11/-13)]	9/3(-13/-16)	> 3 (-16)
FATS							
VEGAN ICE CREAM OTHER DRY EXTRACTS < 0.5		SUGARS	< 12	12/16	[16 / 22]	22 / 25	> 25
TOTAL DRY EXTRACT <28 28/32 [32/42] 42/45 >45 SP <12 12/15 [15/9] 19/22 >22 AFP / SERVING TEMPERATURE <18(-8) 18/12(8/-11) [12/9(-11/-13)] 9/3(-13/-16) >3 (-16 SUGARS <16 16/20 [20/28] 28/32 >32 FATS <0.5 0.5/1 [1/10] 10/15 >15 MSNF* <25 25/28 [28/40] 40/42 >42 TOTAL DRY EXTRACTS <12 12/15 [15/21] 21/25 >25 TOTAL DRY EXTRACT <25 25/28 [28/40] 40/42 >42 SP <12 12/15 [15/19] 19/22 >22 AFP / SERVING TEMPERATURE <18(-8) 18/12(8/-11) [12/9(-11/-13)] 9/3(-13/-16) >3 (-16 CHOCOLATE SORBET SP <12 12/16 [16/22] 22/25 >25 TOTAL DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 TOTAL DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 TOTAL DRY EXTRACTS <32 32/36 (36/45) 45/50 >50 SP <12 12/15 [15/19] 19/22 >22		FATS	< 0	0/0	[0/10]	10 / 15	> 15
TOTAL DRY EXTRACT SP	VEGANICE CDEAM	OTHER DRY EXTRACTS	< 0.5	0.5 / 1	[1/5]	5/6	> 6
AFP / SERVING TEMPERATURE < 18 (-8) 18 / 12 (-8 / -11) [12 / 9 (-11 / -13)] 9 / 3 (-13 / -16) > 3 (-16 / -16	VEGAN ICE CREAM	TOTAL DRY EXTRACT	< 28	28/32	[32 / 42]	42 / 45	> 45
SUGARS < 16		SP	< 12	12 / 15	[15 / 9]	19 / 22	> 22
FRUIT SORBET FRUIT SORBET OTHER DRY EXTRACTS SP CHOCOLATE SORBET FATS COTHER DRY EXTRACTS SP SUGARS SUGARS CHOCOLATE SORBET FATS COTHER DRY EXTRACTS COTHER DRY EXTRACTS COTHER DRY EXTRACT COT		AFP / SERVING TEMPERATURE	< 18 (-8)	18/12(-8/-11)	[12/9(-11/-13)]	9/3(-13/-16)	> 3 (-16)
FRUIT SORBET FRUIT SORBET OTHER DRY EXTRACTS SP CHOCOLATE SORBET FATS COTHER DRY EXTRACTS SP SUGARS SUGARS CHOCOLATE SORBET FATS COTHER DRY EXTRACTS COTHER DRY EXTRACTS COTHER DRY EXTRACT COT							
MSNF* < 25 25/28 [28/40] 40/42 > 42		SUGARS	< 16	16/20	[20 / 28]	28 / 32	> 32
FRUIT SORBET OTHER DRY EXTRACTS <12 12/15 [15/21] 21/25 >25 TOTAL DRY EXTRACT <25 25/28 [28/40] 40/42 >42 SP <12 12/15 [15/19] 19/22 >22 AFP / SERVING TEMPERATURE SUGARS <12 12/16 [16/22] 22/25 >25 FATS <2 2/4 [4/10] 10/15 >15 OTHER DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 >10 SP <12 12/15 [15/19] 19/22 >22 22 22 23 24 [15/19] 19/22 >25 25 25 25 25 25 25 25 25		FATS	< 0.5	0.5 / 1	[1 / 10]	10 / 15	> 15
TOTAL DRY EXTRACT SP		MSNF*	< 25	25 / 28	[28 / 40]	40 / 42	> 42
SP < 12 12/15 [15/19] 19/22 > 22 AFP/SERVING TEMPERATURE < 18 (-8) 18/12(-8/-11) [12/9(-11/-13)] 9/3(-13/-16) > 3 (-16) SUGARS < 12 12/16 [16/22] 22/25 > 25 FATS < 2 2/4 [4/10] 10/15 > 15 OTHER DRY EXTRACTS < 0.5 0.5/2 [2/7] 7/10 > 10 TOTAL DRY EXTRACT < 32 32/36 [36/45] 45/50 > 50 SP < 12 12/15 [15/19] 19/22 > 22	FATS	[15 / 21]	21 / 25	> 25			
AFP / SERVING TEMPERATURE < 18 (-8) 18 / 12 (-8 / -11) [12/9 (-11 / -13)] 9 / 3 (-13 / -16) > 3 (-16 / -16 / -17 /		TOTAL DRY EXTRACT	< 25	25 / 28	[28 / 40]	40 / 42	> 42
SUGARS < 12 12/16 [16/22] 22/25 > 25 FATS < 2 2/4 [4/10] 10/15 > 15 OTHER DRY EXTRACTS < 0.5 0.5/2 [2/7] 7/10 > 10 TOTAL DRY EXTRACT < 32 32/36 [36/45] 45/50 > 50 SP < 12 12/15 [15/19] 19/22 > 22		SP	< 12	12 / 15	[15 / 19]	19 / 22	> 22
CHOCOLATE SORBET FATS <2 2/4 [4/10] 10/15 > 15 OTHER DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 > 10 TOTAL DRY EXTRACT <32 32/36 [36/45] 45/50 > 50 SP <12 12/15 [15/19] 19/22 > 22		AFP / SERVING TEMPERATURE	< 18 (-8)	18/12(-8/-11)	[12/9(-11/-13)]	9 / 3 (-13 / -16)	> 3 (-16)
CHOCOLATE SORBET FATS <2 2/4 [4/10] 10/15 > 15 OTHER DRY EXTRACTS <0.5 0.5/2 [2/7] 7/10 > 10 TOTAL DRY EXTRACT <32 32/36 [36/45] 45/50 > 50 SP <12 12/15 [15/19] 19/22 > 22							
CHOCOLATE SORBET OTHER DRY EXTRACTS < 0.5 0.5/2 [2/7] 7/10 > 10 TOTAL DRY EXTRACT < 32		SUGARS	< 12	12 / 16	[16 / 22]	22 / 25	> 25
CHOCOLATE SORBET TOTAL DRY EXTRACT <pre></pre>		FATS	< 2	2/4	[4 / 10]	10 / 15	> 15
TOTAL DRY EXTRACT < 32 32/36 [36/45] 45/50 > 50 SP < 12 12/15 [15/19] 19/22 > 22	CHOCOLATE CORRET	OTHER DRY EXTRACTS	< 0.5	0.5 / 2	[2/7]	7/10	> 10
	CHOCOLATE SOKBET	TOTAL DRY EXTRACT	< 32	32/36	[36 / 45]	45 / 50	> 50
AFP / SERVING TEMPERATURE < 18 (-8) 18 /12 (-8 / -11) [12 / 9 (-11 / -13)] 9 / 3 (-13 / -16) > 3 (-16		SP	< 12	12 / 15	[15 / 19]	19 / 22	> 22
		AFP / SERVING TEMPERATURE	< 18 (-8)	18/12(-8/-11)	[12/9(-11/-13)]	9/3(-13/-16)	> 3 (-16)

* MSNF: Milk solids-not-fat

How to balance your "Fior di latte" gelato recipe



STEP 1

You're using milk and cream in the recipe. Adding cream means that you can achieve the amount of fat needed to balance your recipe.

INGREDIENTS	WEIGHT (G)	SUGAR	Fat	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	800	0	28	72	0	100	0.064	0.64
WHIPPING CREAM	200	0	70	12.4	0	82.4	0.06	0.112
TOTAL WEIGHT	1000	0	9.8%	8.4%	0	18.2%	1.2%	7.5%

Your indicators are correct

STEP 2

Add the correct amount of sucrose to keep the balance right.

INGREDIENTS	WEIGHT (G)	SUGAR	Fat	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	620	0	28	72	0	77.5	0.064	0.64
WHIPPING CREAM	200	0	70	12.4	0	82.4	0.06	0.112
SUCROSE	180	180	0	0	0	180	1.8	1.8
TOTAL WEIGHT	1000	18%	9.8%	8.4%	0	34%	19.2%	25.5%

✓ Your indicators are correct

STEP 3

Add **powdered milk** to keep the protein content balanced.

INGREDIENTS	WEIGHT (G)	SUGAR	Fat	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	590	0	28	72	0	73.75	0.064	0.64
WHIPPING CREAM	200	0	70	12.4	0	82.4	0.06	0.112
SUCROSE	180	180	0	0	0	180	1.8	1.8
NON-FAT DRY MILK (1% FAT)	30	0	0.3	28.5	0	28.8	0.024	0.21
TOTAL WEIGHT	1000	18%	9.8%	8.4%	0	36.5%	19.5%	27.6%

0

Your indicators are correct

STEP 4

Correct **the sweetening power (SP)** and the texture (AFP) of your recipe by adding dextrose monohydrate powder.

INGREDIENTS	WEIGHT (G)	SUGAR	Fat	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	580	0	20.3	52.2	0	72.5	0.05	0.46
WHIPPING CREAM	200	0	70	12.4	0	82.4	0.06	0.11
SUCROSE	150	150	0	0	0	150	1.5	1.5
DEXTROSE MONOHYDRATE POWDER	40	36.8	0	0	0	36.8	0.256	0.7
NON-FAT DRY MILK (1% FAT)	30	0	0.3	28.5	0	28.8	0.024	0.21
TOTAL WEIGHT	1000	18.7%	9.1%	9.3%	0	37.1%	18.9%	29.8%



To help you choose which sugars to use in your recipe, please refer to page 19.

(V) Your indicators are correct

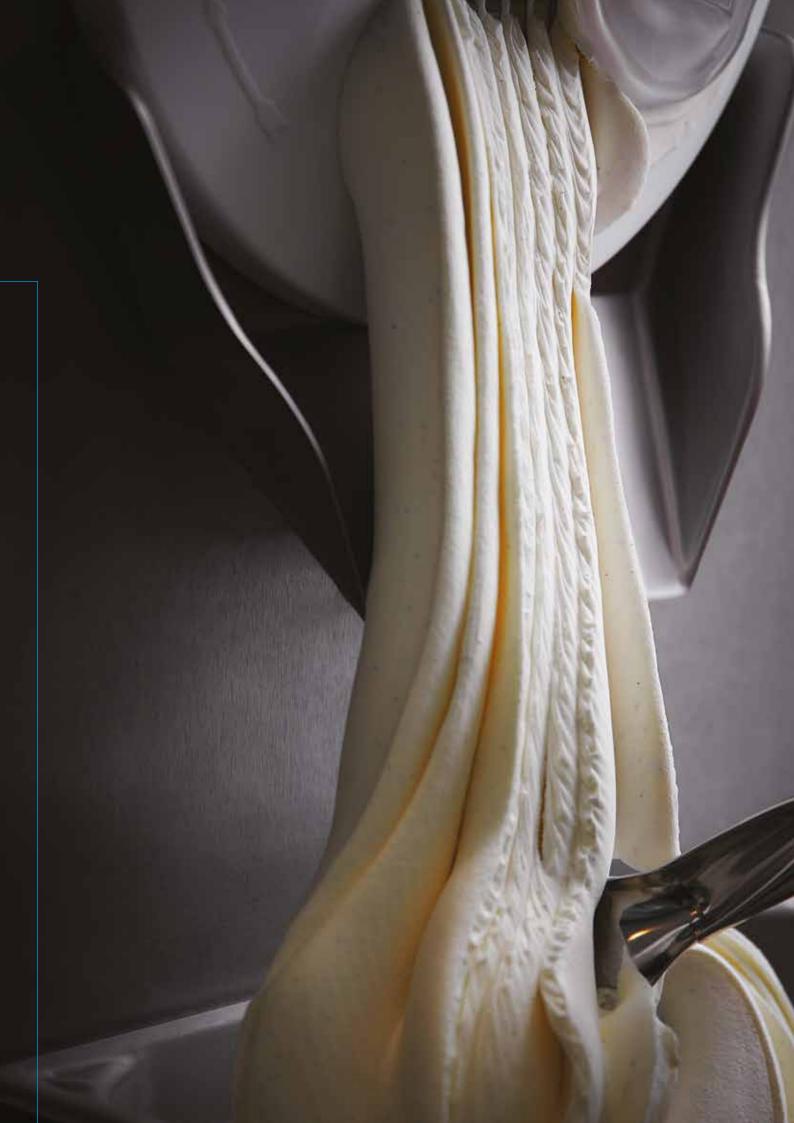
STEP 5

Add stabilizer and emulsifier to your recipe.

INGREDIENTS	WEIGHT (G)	SUGAR	Fat	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	575	0	20.1	51.75	0	71.88	0.05	0.46
WHIPPING CREAM	200	0	70	12.4	0	82.4	0.06	0.11
SUCROSE	150	150	0	0	0	150	1.5	1.5
DEXTROSE MONOHYDRATE POWDER	40	36.8	0	0	0	36.8	0.256	0.7
NON-FAT DRY MILK (1% FAT)	30	0	0.3	28.5	0	28.8	0.024	0.21
STABILIZER/ EMULSIFIER	5	0	0	0	5	5	0	0
TOTAL WEIGHT	1000	18.7%	9%	9.3%	0.5%	37.5%	18.9%	29.8%

Your indicators are correct

CONGRATULATIONS, YOUR FIOR DI LATTE **GELATO RECIPE IS PERFECTLY BALANCED!**



How to turn your "Milk-based gelato" recipe into an "Egg-based gelato" recipe





You want to change your white base recipe (recipe on page 35) to a yellow base recipe.

RECIPE

Substitute some of the cream with egg yolks to control the fat content of your recipe.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	575	0	20.1	51.75	0	71.88	0.05	0.46
WHIPPING CREAM	100	0	35	6.2	0	41.2	0.03	0.056
EGG YOLKS	100	0	29.1	0	16.66	45.76	-	-
SUCROSE	150	150	0	0	0	150	1.5	1.5
DEXTROSE MONOHYDRATE POWDER	40	36.8	0	0	0	36.8	0.256	0.7
NON-FAT DRY MILK (1% FAT)	30	0	0.3	28.5	0	28.8	0.024	0.21
STABILIZER/EMULSIFIER	5	0	0	0	5	5	0	0
TOTAL WEIGHT	1000	18.7%	8.5%	8.6%	2.2%	37.9%	18.6%	29.3%





STEP 1

Decide on **the amount of fruit** in your recipe. For lemons, you've chosen to use 30% rather than 50%, as they are a very acidic fruit.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	700	0	0	0	0	0	0	0
100% LEMON PUREE	300	4.5	1.5	0	2.73	8.73	0.18	0.24
TOTAL WEIGHT	1000	0.5%	0.2%	0%	0.3%	0.9%	1.8%	2.4%

STEP 2

Add sugars to reach a sugar content of around 20 / 25% in your recipe. You create a synergy between sucrose, dextrose (92% solids) and 33DE dehydrated glucose syrup (96% solids). It is composed as follows: (80% - 15% - 5%) i.e.:

175g sucrose, 54g dextrose, 26g glucose.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	410	0	0	0	0	0	0	0
100% LEMON PUREE	300	4.5	1.5	0	2.73	8.73	0.18	0.24
SUCROSE	200	200	0	0	0	200	2	2
GLUCOSE DE33	50	12.5	0	0	34.5	47	0.12	0.28
DEXTROSE MONOHYDRATE POWDER	40	36.8	0	0	0	36.8	0.26	0.7
TOTAL WEIGHT	1000	25.4%	0.2%	0%	3.7%	29.3%	25.6%	32.2%



To help you choose which sugars to use in your recipe, please refer to page 19.





STEP 3

Add stabilizer and fiber (max. 5%). For sorbets that contain a lot of water, we recommend adding fiber to help control the water content.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	375	0	0	0	0	0	0	0
100% LEMON PUREE	300	4.5	1.5	0	2.73	8.73	0.18	0.24
SUCROSE	200	200	0	0	0	200	2	2
GLUCOSE DE33	50	12.5	0	0	34.5	47	0.12	0.28
DEXTROSE MONOHYDRATE POWDER	40	36.8	0	0	0	36.8	0.26	0.7
COLD INULIN	30	0.15	0	0	28.35	28.5	0.04	0.12
STABILIZER	5	0	0	0	5	5	0	0
TOTAL WEIGHT	1000	25.4%	0.2%	0%	7.1%	32.6%	26.0%	33.4%



ALL INDICATORS ARE CORRECT!
CONGRATULATIONS, YOUR LEMON SORBET
RECIPE IS PERFECTLY BALANCED!



If sweetness perception is too high, the 200g of sucrose can be replaced by 50% sucrose and 50% trehalose.

How to balance your raspberry sorbet recipe



RECIPE

Decide on **the amount of fruit** in your recipe. For raspberries, you can use at least 50% fruit.

The recipe process is identical to the one for lemon.

The finished recipe is shown in the table below.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
100% RASPBERRY PURÉE	500	32.5	3	0	43.5	79	0.45	0.65
WATER	245	0	0	0	0	0	0	0
SUCROSE	80	80	0	0	0	80	0.8	0.8
TREHALOSE	60	58.8	0	0	0	58.8	0.27	0.588
GLUCOSE DE33	50	12.5	0	0	34.5	47	0.12	0.28
DEXTROSE MONOHYDRATE POWDER	30	27.6	0	0	0	27.6	0.192	0.525
COLD INULIN	30	0.15	0	0	28.35	28.5	0.042	0.117
STABILIZER	5	0	0	0	5	5	0	0
TOTAL WEIGHT	1000	21.2%	0.3%	0%	11.1%	32.6%	18.7%	29.6%



ALL INDICATORS ARE CORRECT! CONGRATULATIONS, YOUR RASPBERRY SORBET RECIPE IS PERFECTLY BALANCED!





How to balance your pistachio sorbet recipe



STEP 1

Include a minimum of **10% pistachios** in your recipe (recommended amount for all nuts).

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	900	0	0	0	0	0	0	0
PURE SICILIAN PISTACHIO PASTE	100	4.5	56.1	0	28.7	89.3	0	0
TOTAL WEIGHT	1000	0.5%	5.6%	0%	2.9%	8.9%	0%	0%

STEP 2

Add the sugar.

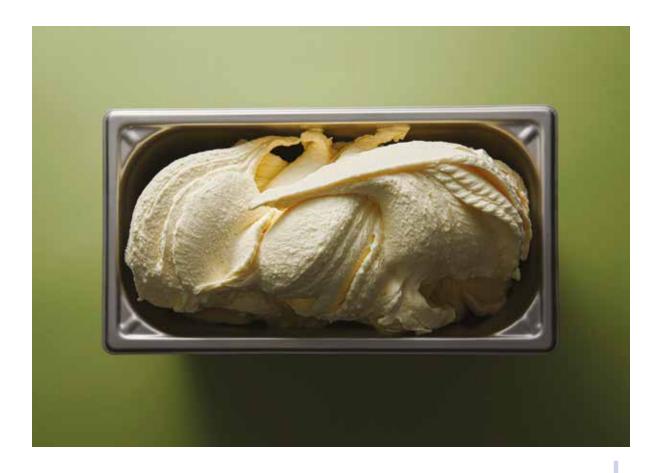
INGREDIENTS	WEIGHT	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	700	0	0	0	0	0	0	0
PURE SICILIAN PISTACHIO PASTE	100	4.5	56.1	0	28.7	89.3	0	0
INVERT SUGAR	200	200	0	0	0	200	2	2
TOTAL WEIGHT	1000	20.5%	5.6%	0%	2.9%	28.9%	20%	20%

STEP 3

Add the other sugars to reduce the SP and increase AFP. You create a synergy between sucrose, dextrose (92% dry extract) and DE33 powdered glucose syrup (96% dry extract).

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	640	0	0	0	0	0	0	0
PURE SICILIAN PISTACHIO PASTE	100	4.5	56.1	0	28.7	89.3	0	0
TREHALOSE	90	88.2	0	0	0	88.2	0.405	0.882
INVERT SUGAR	70	70	0	0	0	70	0.7	0.7
DEXTROSE MONOHYDRATE POWDER	60	55.2	0	0	0	55.2	0.384	1.05
GLUCOSE DE33	40	10	0	0	26.7	37.6	0.096	0.224
TOTAL WEIGHT	1000	22.8%	5.6%	0%	5.6%	34.0%	15.9%	28.9%





STEP 4

Add stabilizer and fiber (maximum 5%) to control the water content and thus increase the quantity of dry extract.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	595	0	0	0	0	0	0	0
PURE SICILIAN PISTACHIO PASTE	100	4.5	56.1	0	28.7	89.3	0	0
TREHALOSE	90	88.2	0	0	0	88.2	0.405	0.882
INVERT SUGAR	70	70	0	0	0	70	0.7	0.7
DEXTROSE MONOHYDRATE POWDER	60	55.2	0	0	0	55.2	0.384	1.05
GLUCOSE DE33	40	10	0	0	26.7	37.6	0.096	0.224
COLD INULIN	40	0.2	0	0	37.8	38	0.056	0.156
STABILIZER	5	0	0	0	5	5	0	0
TOTAL WEIGHT	1000	22.8%	5.6%	0%	9.9%	38.3%	16.4%	30.1%

How to balance your Guanaja chocolate sorbet recipe



STEP 1

Stir in the chocolate. You can use between 10 and 25% chocolate (in this case, we've chosen 18%).

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	820	0	0	0	0	0	0	0
GUANAJA 70%	180	51.66	72.36	0	51.12	179.1	0.522	0.522
TOTAL WEIGHT	1000	5.2%	7.6%	0%	5.1%	17.9%	5.2%	5.2%

STEP 2

Add the sugar.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	640	0	0	0	0	0	0	0
GUANAJA 70%	180	51.66	72.36	0	51.12	179.1	0.522	0.522
INVERT SUGAR	180	180	0	0	0	180	1.8	1.8
TOTAL WEIGHT	1000	23.2%	7.6%	0%	5.1%	35.9%	23.2%	28.2%

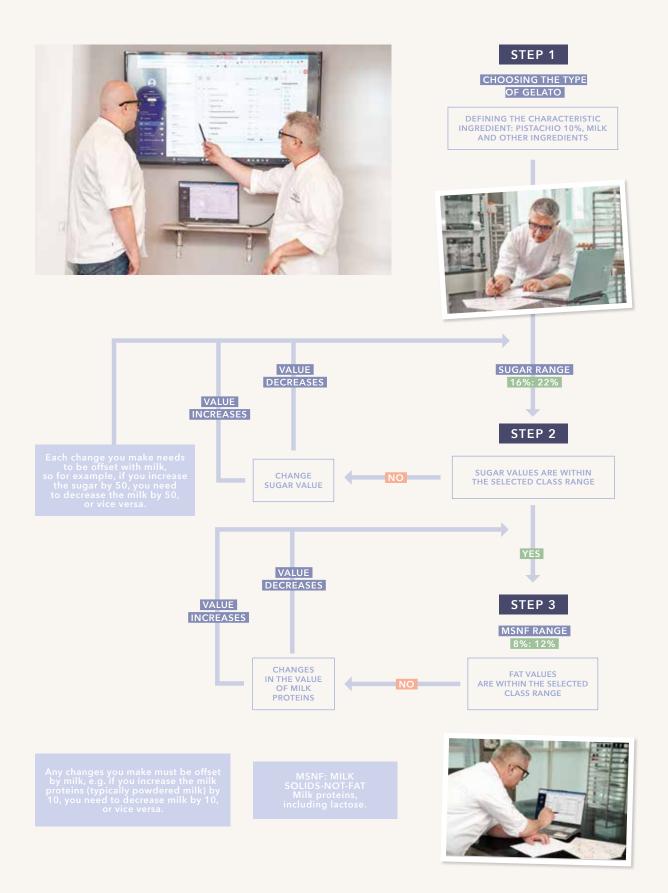
STEP 3

Add the other sugars to reduce the SP and increase AFP. Add the **stabilizer/emulsifier too.**

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WATER	640	0	0	0	0	0	0	0
GUANAJA 70%	100	4.5	56.1	0	28.7	89.3	0	0
TREHALOSE	90	88.2	0	0	0	88.2	0.405	0.882
INVERT SUGAR	180	180	0	0	0	180	1.8	1.8
DEXTROSE MONOHYDRATE POWDER	50	46	0	0	0	46	0.32	0.875
GLUCOSE DE33	40	10	0	0	26.7	37.6	0.096	0.224
STABILIZER	5	0	0	0	5	5	0	0
TOTAL WEIGHT	1000	26.6%	7.6%	0%	8.4%	42.6%	20.4%	32%



How to balance your gelato using computer software



01

PISTACHIO GELATO

The steps involved in balancing a milk-based pistachio gelato

STEP 1

You are using milk and cream in your recipe. Adding cream allows you to respect **the amount of fat** needed to balance your recipe.

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	900	0	31.5	81	0	112.5	0.072	0.72
PURE SICILIAN PISTACHIO PASTE	100	4.5	56.1	0	28.7	89.3	0	0
TOTAL WEIGHT	1000	0.40%	8.80%	8.10%	2.90%	20.20%	0.70%	7.20%

√ Your indicators are correct

STEP 2

Add the correct amount of sucrose to keep the balance right.

< 12	[12 / 16]	[16% / 22]	[22 / 25]	> 25

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	720	0	25.2	64.8	0	90	0.0576	0.0576
SUCROSE	180	180	0	0	0	180	1.8	1.8
PURE SICILIAN PISTACHIO PASTE	100	4.5	56.1	0	28.7	89.3	0	0
TOTAL WEIGHT	1000	18.5%	8.1%	6.5%	2.9%	35.9%	18.6%	23.8%

✓ Your indicators are correct

STEP 3

Add powdered milk to keep the protein content balanced.

< 6	[6/8]	[8% / 12]	[12 / 15]	> 15

INGREDIENTS	WEIGHT (G)	SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
WHOLE MILK (3.5% FAT)	680	0	23.8	61.2	0	85	0.0544	0.0544
PURE SICILIAN PISTACHIO PASTE	180	180	0	0	0	180	1.8	1.8
SUCROSE	100	4.5	56.1	0	28.7	89.3	0	0
NON-FAT DRY MILK (1% FAT)	40	0	0.4	38	0	38.4	0.032	0.28
TOTAL WEIGHT	1000	18.5%	8%	9.9%	2.9%	39.3%	18.9%	26.2%

O2-MILK BASE-WHITE BASE





02

1

MILK BASE / WHITE BASE GELATO

Carefully weigh all the ingredients.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

To start with, you can add 1% powdered milk (to hydrate it properly).

At 105/115°F (40/45°C), add the sugars (sucrose, dextrose, glucose syrup and maltodextrin), then finish by adding the Profiber (or other stabilizer mix), to which a portion of the initial sugar (around 10%) has been added to help disperse the powders. Then add the fat (cream).

At 115°F (45°C), pasteurize at the desired temperature (150°F (65°C) for 20 minutes / 185°F (85°C) for 1 minute), then cool rapidly to 40°F (4°C).

If possible, beat the mixture to break up the fat molecules as finely as possible.

INGREDIENTS	1000g		3000g	15,000g
WHOLE MILK (3.5% FAT)	584g	58.4%	1752g	8760g
WHIPPING CREAM	166g	16.6%	120g	600g
SUCROSE*	63g	6.3%	189g	945g
DEXTROSE	63g	6.3%	189g	945g
NON-FAT DRY MILK (1% FAT)	40g	4%	120g	600g
GLUCOSE DE60	40g	4%	120g	600g
MALTODEXTRIN 18DE	40g	4%	498g	2490g
PROFIBER	4g	0.4%	12g	60g

^{*} Sucrose: reference sugar for sweetening power index (SP or POD).

Recipe technical data

SUGAR	FAT	MSNF	OTHER DRY EXTRACT	TOTAL DRY EXTRACT	SP	AFP
16.1%	8.5%	10.1%	3.4%	38.1%	14.1%	30.9%



Tips

If you want to reduce the sweetness of the final taste, you can substitute some of the sucrose with trehalose. (50% sucrose, 50% trehalose)

FLAVORING THE WHITE BASE

2 VANILLA GELATO

1000g White base















MADAGASCAN VANILLA BEAN	TAHITIAN VANILLA BEAN	MEXICAN VANILLA BEANS	MADAGASCAN VANILLA BEAN	TAHITENSIS VANILLA BEAN PASTE	VAKANA VANILLA PEARLS	TADOKA
8 / 16g	8 / 16g	8 / 16g	18 / 26g	18 / 26g	6 / 10g	2 gems



Tips

For **vanilla bean paste and Tadoka**, it is important o flavor the white base before pasteurization to ensure that they are fully melted.

3 COFFEE GELATO

1000g White base40g Coffee bean paste1040g Total weight

Coffee bean paste can be added both hot and cold.





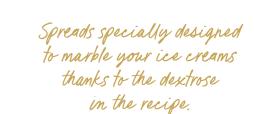


"Bacio" style Grianduja GELATO

Take 15% of the white base (still hot), add the dextrose, hot whole milk, salt and hazelnut paste, and mix with the partially melted P125.

INGREDIENTS	1000g		3000g
WHITE BASE	815g	81.5%	2445g
PGI PIEDMONT HAZELNUT FLOUR	65g	6.5%	195g
WHOLE MILK (3.5% FAT)	49g	4.9%	147g
DEXTROSE	41g	4.1%	123g
P125 CŒUR DE GUANAJA	29g	2.9%	87g
SALT	1g	0.1%	3g





E A Little bit of history

"Bacio" ice cream takes its name from the famous Italian chocolate Baci Perugina, a chocolate and hazelnut delicacy, often wrapped in silver paper with a love message written on it. The Italian word "bacio" means "kiss", which adds a romantic, sentimental touch to this delicacy.





4 "SPAGNOLA" GELATO

1000g White base We recommend adding 5% "Amarena di cantanio".

50g "Amarena di cantanio" You can also marble your ice cream with sour cherry sauce (recipe on page 100).

(Semi-candied sour cherries)

1050g Total weight

"STRACCIATELLA" GELATO

1000g White base As needed Chocolate chips or melted

chocolate

1000g Total weight

We recommend including 100g of chocolate per kilo of ice cream. If you use melted chocolate for marbling, you can add 10% cocoa butter for a crunchier effect or 10% for a more melting effect.

Tips

We recommend using 50% to 65% cocoa chocolate for stracciatella.



Stracciatella ice cream is one of the most popular flavors in Italian ice cream parlors.

It is known for its creamy taste and crunchy chocolate chips, similar to the pleasure of biting into a melting chocolate bar.



Pistachio GELATO

Carefully weigh all the ingredients.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

Mix the following ingredients: 1% dry milk, sucrose, dextrose and glucose syrup.

At 105°F (40°C), add the Profiber, together with part of the original sugar (approx. 10%).

At 140°F (60°C), pour some of the liquid (2/3 of the weight of the pure paste) over the paste, mixing in the center until an elastic, shiny core forms, indicating that the mixture is starting to emulsify.

Gradually add the remaining liquid.

Blend until the emulsion is perfect.

Pasteurize at the desired temperature ($140^{\circ}F$ ($65^{\circ}C$) for 20 minutes / $185^{\circ}F$ ($85^{\circ}C$) for 1 minute), then cool rapidly to $40^{\circ}F$ ($4^{\circ}C$). If possible, beat the mixture to break up the fat molecules as finely as possible.

If you are working with a combination machine, proceed with creaming.



We always recommend aging for at least 4 hours at 40°F (4°C) for optimum results, before proceeding with churning.

INGREDIENTS	1000g		3000g
WHOLE MILK (3.5% FAT)	612g	61.2%	1836g
PURE PISTACHIO PASTE	130g	13%	390g
GLUCOSE DE60	122g	12.2%	366g
SUCROSE	49g	4.9%	147g
NON-FAT DRY MILK (1% FAT)	41g	4.1%	123g
DEXTROSE	41g	4.1%	123g
PROFIBER	4g	0.4%	12g
FINE SALT	1g	0.1%	3g









Chocolate GELATO

Carefully weigh all the ingredients.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

Mix the following ingredients: 1% dry milk, sucrose, dextrose and glucose syrup.

At 105°F (40°C), add the Profiber, together with part of the original sugar (approx. 10%).

Once it is at 140°F (60°C), combine a portion of the liquid (2/3 of the chocolate weight) with the partially melted chocolate, mixing in the center to create an elastic, shiny core. This indicates that the mixture is starting to emulsify.

Gradually add the remaining liquid.

Blend until the emulsion is perfect.

Pasteurize at the desired temperature (140°F (65°C) for 20 minutes / 185°F (85°C) for 1 minute), then cool rapidly to 40°F (4°C). If possible, beat the mixture to break up the fat molecules as finely as possible.



We always recommend aging for at least 4 hours at $40^{\circ}F$ ($4^{\circ}C$) for optimum results, before proceeding with churning.

6 GUANAJA 70% GELATO

INGREDIENTS	1000g		3000g
WHOLE MILK (3.5% FAT)	564g	56.4%	1692g
GUANAJA 70%	207g	20.7%	621g
LIQUID INVERT SUGAR	94g	9.4%	282g
DEXTROSE	85g	8.5%	255g
NON-FAT DRY MILK (1% FAT)	47g	4.7%	141g
PROFIBER	3g	0.3%	9g

P125 & EXTRA BITTER 61% & CONFECTION 80% GELATO

Carefully weigh all the ingredients.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

Mix the following ingredients: 1% dry milk, sucrose, dextrose and glucose syrup.

At 105°F (40°C), add the Profiber, together with part of the original sugar (approx. 10%).

Once it is at 140°F (60°C), combine a portion of the liquid (2/3 of the chocolate weight) with the partially melted chocolate, mixing in the center to create an elastic, shiny core. This indicates that the mixture is starting to emulsify.

Gradually add the remaining liquid.

Blend until the emulsion is perfect.

Pasteurize at the desired temperature (140°F (65°C) for 20 minutes / 185°F (85°C) for 1 minute), then cool rapidly to 40°F (4°C). If possible, beat the mixture to break up the fat molecules as finely as possible.



We always recommend aging for at least 4 hours at 40°F (4°C) for optimal results, before proceeding with churning.

P125 & Extra Bitter Gelato

INGREDIENTS	1000g		3000g
WHOLE MILK (3.5% FAT)	570g	57%	1710g
EXTRA BITTER 61%	142g	14.2%	426g
LIQUID INVERT SUGAR	85g	8.5%	255g
DEXTROSE	85g	8.5%	255g
P125 CŒUR DE GUANAJA	67g	6.7%	201g
NON-FAT DRY MILK (1% FAT)	48g	4.8%	144g
PROFIBER	3g	0.3%	9g

Confection 80% Gelato

INGREDIENTS	1000 g		3000 g	
WHOLE MILK (3.5% FAT)	567 g	56,7 %	1701 g	
CONFECTION 80%	208 g	20,8 %	624 g	
LIQUID INVERT SUGAR	94,5 g	9,45 %	284 g	
DEXTROSE	80,3 g	8,03 %	241 g	
NON-FAT DRY MILK (1% FAT)	47,3 g	4,73 %	142 g	
PROFIBER	2,8 g	0,28 %	8,5 g	

^{*}Identical amounts for Équateur 80%, Ghana 80%, Madagascar 80%, République Dominicaine 80%

O3— EGG BASE YELLOW BASE



1 EGG BASE / YELLOW BASE

Carefully weigh all the ingredients.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

Once it is at 75°F (25°C), add the 1% fat dry milk.

At 85°F (30°C), add the sugars (sucrose, dextrose and maltodextrin).

Once it is at 105°F (40°C), incorporate the fats (cream and egg yolks).

At 115°F (45°C), finish off by adding the Profiber to some of the original sugar (approx. 10%).

Pasteurize at 185°F (85°C) for 2 minutes then quickly cool the mixture to 40°F (4°C).

If possible, beat the mixture to break up the fat crystals as finely as possible.

INGREDIENTS	1000g		3000g	15,000g	
WHOLE MILK (3.5% FAT)	540g	54%	1608g	8040g	
WHIPPING CREAM	120g	12%	360g	1800g	
EGG YOLK	100g	10%	300g	1500g	
SUCROSE	100g	10%	300g	1500g	
DEXTROSE	60g	6%	180g	900g	
NON-FAT DRY MILK (1% FAT)	40g	4%	120g	600g	
MALTODEXTRIN 18DE	40g	4%	120g	600g	
PROFIBER	4g	0.4%	12g	60g	





If the pasteurization temperature is lowered, the yolk flavor will become more pronounced.

FLAVORING THE YELLOW BASE

VANILLA GELATO

1000g Yellow base















MADAGASCAN VANILLA BEAN	TAHITIAN VANILLA BEAN	MEXICAN VANILLA BEANS	MADAGASCAN VANILLA BEAN	TAHITENSIS VANILLA BEAN PASTE	VAKANA VANILLA PEARLS	TADOKA
8/16g	8 / 16g	8 / 16g	10/20g	10 / 20g	6 / 10g	1 to 2 gems





For **vanilla bean paste and Tadoka**, it is important to flavor the yellow base before pasteurization to ensure that they are fully melted.

COFFEE GELATO

1000g Yellow base 40g Coffee bean paste

1040g

Total weight

Coffee bean paste can be added both hot and cold.





2uppa Inglese GELATO

1000g Yellow base

Mona Lisa cookie

195g Whole eggs120g Almond flour120g Confectioners' sugar

120g Confectioners suga

155g Egg whites40g Sugar

80g All-purpose flour

40g European butter

750g Total weight

Whisk together the eggs, almond flour and confectioners' sugar.

Whisk the egg whites while gradually adding the caster sugar.

Mix some stiffened egg whites into the first mixture.

Sift together the flour and cocoa powder and add them in, followed by the rest

of the egg whites, and finish with the melted butter at 115°F (45°C).

Baking: On a baking sheet at 390/430°F (200/220°C) for 6-8 minutes.

500g to 750g for a 15×24 inch format.

SYRUP

543g Water

263g Alchermes Liqueur 70°

194g Saccharose

1000g Total weight

Heat all ingredients to a maximum of $120^{\circ}F$ ($50^{\circ}C$) to preserve the flavors of the liqueur.



Final alcohol in syrup: approx. 22%.



"Zuppa Inglese" ice cream is inspired by the famous Italian dessert of the same name, known for its layers of liqueur-soaked sponge cake and custard, offering a rich, aromatic blend.





5 MALAGA GELATO

1000g Yellow base

Rum raisins

1000g Raisins 1000ml Rum 1100g Total weight

Soak raisins in rum for several hours, or overnight, to absorb the liquid and become well-flavored.

After preparing and cooling the ice cream base, add the soaked raisins and some of the rum used for soaking.

Stir well to distribute the raisins and rum evenly in the base before churning the ice cream.



Vacuum-sealed grapes can be soaked by placing them in a bag with the soaking liquid. By removing the air, the liquid penetrates more quickly and evenly, improving flavor and texture.

6 "SPAGNOLA" GELATO

1000g Yellow base

50g "Amarena di cantanio"

(Semi-candied sour cherries)

1050g Total weight

We recommend adding 5% "Amarena di cantanio".

You can also marble your ice cream with sour cherry sauce (recipe on page 100).



SOUR CHERRY SAUCE

P.100



O4—VEGAN GELATO & SORBET

In this chapter, you'll find recipes for both vegan sorbets and gelato made with couvertures or nuts.



1 FRUIT SORBET

Weigh all ingredients carefully.

In the following order: pour the water into the cooking appliance (saucepan or pasteurizing machine). AT 85°F (30°C), add the sugars (sucrose, dextrose, maltodextrin, inulin).

At 115°F (45°C), add the Profiber, together with part of the sugar (approx. 10%), until a syrup forms.

Pasteurize at $150^{\circ}F$ ($65^{\circ}C$) for 2 minutes, then cool rapidly to $40^{\circ}F$ ($4^{\circ}C$).

Keep refrigerated for up to 7 days.

Syrup base

INGREDIENTS	1000g		15,000g
WATER	473g	47.3%	7095g
DEXTROSE	198g	19.8%	2970g
SUCROSE	151g	15.1%	2265g
COLD INULIN	104g	10.4%	1560g
MALTODEXTRIN 18DE	66g	6.6%	990g
PROFIBER	8g	0.8%	120g

Flavoring

PRODUCTS	Cléry & Charlotte Strawberry		Rasp	Raspberry		Sour cherry		Mango	
FRUIT PURÉE	1000g	1500g	1000g	1500g	1000g	1500g	1000g	1500g	
BASE SYRUP	1000g	1500g	1000g	1500g	1000g	1500g	1000g	1500g	
WATER	-	-	-	-	-	-	-	-	
TOTAL WEIGHT	2000g	3000g	2000g	3000g	2000g	3000g	2000g	3000g	

PRODUCTS	Passion Fruit		Pinea	Pineapple		Lemon		Tangerine	
FRUIT PURÉE	1000g	1500g	1000g	1500g	600g	900g	1000g	1500g	
BASE SYRUP	1000g	1500g	1000g	1500g	1000g	1500g	1000g	1500g	
WATER	-				400g 600g				
TOTAL WEIGHT	2000g	3000g	2000g	3000g	2000g	3000g	2000g	3000g	

Fruitpurée

No added sugar or additives, for ethically conscious professionals



BERGAMOT 1kg



CALAMANSI 1kg



LEMON

1kg / 5kg / 10kg



LIME 1kg/5kg



TANGERINE

1kg / 5kg



BLOOD **ORANGE**

1kg



YUZU 1kg



BLACKCURRANT

1kg / 5kg



STRAWBERRY 1kg / 5kg / 10kg



MARA DES BOIS STRAWBERRY

1kg / 5kg



RASPBERRY 1kg / 5kg / 10kg



SOUR CHERRY

1kg



WILD **BLUEBERRY**

1kg / 5kg



APRICOT

1kg / 5kg



WHITE PEACH

1kg / 5kg



PEACH

1kg / 5kg



PINEAPPLE

1kg / 5kg



PASSION FRUIT

1kg / 5kg / 10kg



LYCHEE

1kg



MANGO

1kg / 5kg / 10kg



COCONUT

1kg / 5kg

PACKAGING

Box of 4×1 kg boxes Box of 2×5 kg buckets Box of 1 × 10kg bucket



04

Pistachio SORBET After preparing the base syrup, add the water, salt and Profiber.

After preparing the base syrup, add the water, salt and Profiber.

Gently heat the mixture to 115°F max. (45°C max.), pour over the pistachio paste, and try to emulsify well.

INGREDIENTS	1000g		3000g
BASE SYRUP	545g	54.5%	1635g
WATER	316g	31.6%	948g
SICILIAN PISTACHIO PASTE	136g	13.6%	408g
PROFIBER	2.5g	0.25%	7.5g
SALT	1g	0.1%	3g



Chocolate SORBET

Weigh all ingredients carefully.

In the following order: pour the water into the cooking appliance (saucepan or pasteurizing machine).

Once it has reached 85°F (30°C), add the sugars (glucose, dextrose and liquid invert sugar).

Once it has reached 115°F (45°C), add the Profiber, together with some of the sugars (approx. 10%).

Once it has reached 140°F (60°C), combine a portion of the liquid (2/3 of the chocolate weight) with the partially melted chocolate, mixing in the center to form an elastic, shiny core, which indicates that the mixture is starting to emulsify. Continue, gradually adding the rest of the liquid.

Blend until the emulsion is perfect.

Pasteurize at 185°F (85°C) for 2 minutes then quickly cool the mixture to 40°F (4°C).

If possible, beat the mixture to break up the fat crystals as finely as possible.

NYANGBO 68% SORBET

INGREDIENTS	1000g		3000g
WATER	538g	53.8%	1614g
NYANGBO 68%	222g	22.2%	666g
LIQUID INVERT SUGAR	111g	11.1%	333g
DEXTROSE	79g 7.9%		237g
GLUCOSE 60DE	47g	4.7%	141g
PROFIBER	3g	0.3%	9g

CONFECTION 80% SORBET

INGREDIENTS	1000 g		3000 g
WATER	480 g	48 %	1441 g
CONFECTION 80%	216 g	21,6 %	648 g
DEXTROSE	72 g	7,2 %	216 g
TREHALOSE	72 g	7,2 %	216 g
GLUCOSE 60DE	60 g	6 %	180 g
INULIN	48 g	4,8 %	144 g
MALTODEXTRINE 18DE	48 g	4,8 %	144 g
PROFIBER	3,6 g	0,36 %	10,8 g

^{*}Identical amounts for Équateur 80%, Ghana 80%, Madagascar 80%, République Dominicaine 80%

04

Amatika coffee SORBET

Weigh all ingredients carefully.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

Once it has reached 75°F (25°C), add the organic coffee bean paste.

Once it has reached 85°F (30°C), add the sugars (trehalose and dextrose).

Once it has reached 115°F (45°C), add the Profiber, together with some of the original sugar (approx. 10%).

Once it has reached 140°F (60°C), combine a portion of the liquid (2/3 of the chocolate weight) with the partially melted chocolate, mixing in the center to form an elastic, shiny core, which indicates that the mixture is starting to emulsify. Continue, gradually adding the rest of the liquid.

Blend until the emulsion is perfect.

Pasteurize at 185°F (85°C) for 2 minutes then quickly cool the mixture to 40°F (4°C).

If possible, beat the mixture to break up the fat crystals as finely as possible.

INGREDIENTS	1000g		3000g
FILTER COFFEE	538g	53.8%	1614g
AMATIKA 46%	183g	18.4%	548g
TREHALOSE	173g	17.3%	519g
DEXTROSE	63.4g	6.3%	190g
ORGANIC COFFEE BEAN PASTE	38.4g	3.8%	115g
PROFIBER	4.8g	0.4%	14.4g

OUR SELECTED PRODUCTS



28074 AMATIKA 46%

Single Origin Madagascar cocoa

COCOA-RICH, CEREALS & TOASTED ALMONDS

The creamy texture of Amatika gives way to notes of cocoa, toasted almonds, and a hint of tanginess, reminiscent of a picnic in the peaceful surroundings of a Malagasy garden.

VALRHONA

Amatika white, bergamot, vanilla SORBET

Weigh all ingredients carefully.

In the following order: pour the water into the cooking appliance (saucepan or pasteurizing machine).

When it reaches 85°F (30°C), add the sugars (trehalose, dextrose and maltodextrin), Tadoka and salt.

When it reaches 115°F (45°C), add the Profiber, together with some of the original sugar (approx. 10%).

Once it has reached 140°F (60°C), combine a portion of the liquid (2/3 of the chocolate weight) with the partially melted chocolate, mixing in the center to form an elastic, shiny core, which indicates that the mixture is starting to emulsify. Continue, gradually adding the rest of the liquid.

Blend until the emulsion is perfect.

Pasteurize at 185°F (85°C) for 2 minutes then quickly cool the mixture to 40°F (4°C).

Add the bergamot purée.

If possible, beat the mixture to break up the fat crystals as finely as possible.

INGREDIENTS	1000g		3000g
WATER	496g	49.6%	1488g
AMATIKA 35%	225g	22.5%	675g
BERGAMOT PURÉE	90g	9%	270g
TREHALOSE	90g	9%	270g
DEXTROSE	54g	5.4%	162g
MALTODEXTRIN 18DE	N 18DE 36g 3.6%		108g
TADOKA	4g	0.4%	12g
PROFIBER	4g	0.4%	12g
SALT	1g	0.1%	3g











05— SOFT



SOFT chocolates pralinés and pure pastes

Weigh all ingredients carefully.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

Once it is at 75°F (25°C), add the 1% fat dry milk.

Once it is at 85°F (30°C), add the sugars (sucrose, glucose powder, and cremsucre).

Once it is at 105°F (40°C), incorporate the fats (cream).

Once it is at 115°F (45°C), add the Profiber, together with some of the original sugar (approx. 10%).

Once it is at 140°F (60°C), combine a portion of the liquid (2/3 of the total weight) with the partially melted chocolate (or praliné), mixing in the center to form an elastic, shiny core, which indicates that the mixture is starting to emulsify.

Continue, gradually adding the rest of the liquid.

Blend until the emulsion is perfect.

Pasteurize at 185°F (85°C) for 2 minutes then quickly cool the mixture to 40°F (4°C).

If possible, beat the mixture to break up the fat crystals as finely as possible.

Leave the mixture to rest for at least 12 hours at 40°F (4°C).

Put it in a soft ice cream maker, churn it when you need to and serve immediately.

PRODUCTS	WEIGHT WHOLE M		WHIPPING CREAM	1% FAT DRY MILK	SUCROSE	GLUCOSE POWDER DE33	CREMSUCRE PASTE*	PROFIBER	
P125 CŒUR DE GUANAJA	280g	1358g	-	67g	127g	120g	40g	8g	
GUANAJA 70%	240g	1350g	35g	72g	135g	120g	40g	8g	
MACAÉ 62%	280g 1312g	1312g	33g	67g	140g	120g	40g	8g	
JIVARA 40%	280g	1353g	-	67g	132g	120g	40g	8g	
BLOND DULCEY 35%	280g	1345g	33g	60g	127g	147g	-	8g	
IVOIRE 35%	280g	1381g	-	67g	105g	120g	40g	8g	
OPALYS 33%	280g	1380g	-	67g	105g	120g	40g	8g	
50% NUTTY ALMOND AND HAZELNUT PRALINÉ	240g	1359g	-	73g	120g	160g	40g	8g	
66% NUTTY HAZELNUT PRALINÉ	270g	1352g	-	70g	140g	120g	40g	8g	
PIEDMONT PGI HAZELNUT PASTE MEDIUM ROAST	180g	1392g	-	70g	190g	120g	40g	8g	
SICILIAN PISTACHIO PASTE	200g	1372g	-	70g	190g	120g	40g	8g	

^{*} Cremsucre = Invert sugar paste



SOFT vanilla, coffee, fruit & Horal waters

Weigh all ingredients carefully.

In the following order: pour the milk into your cooking appliance (saucepan or pasteurizing machine).

Once it is at 75°F (25°C), add the 1% dry milk and the vanilla or coffee bean paste.

Once it is at 85°F (30°C), add the sugars (sucrose, glucose powder, and cremsucre).

Once it is at 105°F (40°C), incorporate the fats (cream).

Once it is at 115°F (45°C), add the Profiber, together with some of the original sugar (approx. 10%).

Pasteurize at 185°F (85°C) for 2 minutes then quickly cool the mixture to 40°F (4°C).

If possible, beat the mixture to break up the fat crystals as finely as possible.

Leave the mixture to rest for at least 12 hours at 40°F (4°C).

Strain if using vanilla beans, or add fruit purée or floral waters.

Put it in a soft ice cream maker, churn it when you need to and serve immediately.

Vanilla

PRODUCTS	WEIGHT	WHOLE MILK 4% FAT	WHIPPING CREAM	1% FAT DRY MILK	SUCROSE	GLUCOSE POWDER DE33	DEXTROSE	CREMSUCRE PASTE*	PROFIBER
MEXICAN VANILLA BEANS	16g	1382g	110g	45g	285g	130g	40g	-	8g
MADAGASCAN VANILLA BEAN	16g	1382g	110g	45g	285g	130g	40g	-	8g
TAHITIAN VANILLA BEAN	16g	1382g	110g	45g	285g	130g	40g	-	8g
MADAGASCAN VANILLA BEAN	20g	1357g	110g	45g	280g	140g	40g	-	8g
TAHITENSIS VANILLA BEAN PASTE	20g	1357g	110g	45g	280g	140g	40g	-	8g
VAKANA VANILLA PEARLS	10g	1357g	110g	45g	280g	140g	40g	-	8g

Coffee

PRODUCTS	WEIGHT	WHOLE MILK 4% FAT	WHIPPING CREAM	1% FAT DRY MILK	SUCROSE	GLUCOSE POWDER DE33	DEXTROSE	CREMSUCRE PASTE*	PROFIBER
ORGANIC COFFEE BEAN PASTE	60g	1240g	220g	90g	200g	140g	40g	-	8g

Floral waters

PRODUCTS	WEIGHT	WHOLE MILK 4% FAT	WHIPPING CREAM	1% FAT DRY MILK	SUCROSE	GLUCOSE POWDER DE33	DEXTROSE	CREMSUCRE PASTE*	PROFIBER
ORANGE BLOSSOM WATER	40g	1240g	220g	90g	200g	140g	40g	-	8g
ROSE WATER	40g	1240g	220g	90g	200g	140g	40g	-	8g

^{*} Cremsucre = Invert sugar paste







Fruit

PRODUCTS	WEIGHT	WHOLE MILK 4% FAT	WHIPPING CREAM	1% FAT DRY MILK	SUCROSE	GLUCOSE POWDER DE33	DEXTROSE	CREMSUCRE PASTE*	PROFIBER
Passion Fruit	700g	580g	200g	132g	200g	120g	60g	-	8g
Raspberry	900g	350g	200g	152g	200g	130g	60g	-	8g
Cléry & Charlotte Strawberry	1000g	250g	200g	142g	200g	130g	60g	-	8g















> Think about using this recipe with the other foult purees in our Adamance range!

O6—GRANITA







COFFEE GRANITA

Carefully weigh all of the powders.

Add the powders to the hot water and stir well to obtain a syrup.

Put in a freezer and use the appropriate cycle, or put in the blast chiller and stir from time to time until the desired consistency is reached.



Tips Be careful with coffee granita: to obtain a dark color, mix slowly without incorporating air.

INGREDIENTS	1000g		3000g
ESPRESSO COFFEE	790g	79%	2370g
SUCROSE	105g	10.5%	315g
GLUCOSE DE60	105g	10.5%	315g



In Italy, granita is a Sicilian tradition. This frozen dessert is made with sugar, water and various flavors such as lemon, almond or coffee. Unlike ice cream, granita is less creamy and has a more granular texture. It is often served with a brioche for breakfast in Sicily, especially during the hot summer months.

Weigh all ingredients carefully.

Heat the water and sugar to around 175°F (80°C).

Pour over the cocoa paste and emulsify.

Put in a freezer and use the appropriate cycle, or put in the blast chiller and stir from time to time until the desired consistency is reached

INGREDIENTS	1000g		3000g
WATER	650g	65%	1950g
CANE SUGAR	200g	20%	600g
EXTRA BITTER 61%	150g	15%	450g



A historic chocolate from Valrhona!

3 words to define it proven,

consistent and versatile.

3 PISTACHIO GRANITA



* Pure pistachio pastes: you can adjust the texture by using pistachio paste with different consistencies.

Accurately weigh out the sugars.

Add them to the hot water and mix well to obtain a syrup. Pour over the pure pastes and mix well.

Place in a food processor and run the appropriate cycle, stirring occasionally until the desired consistency is reached.

INGREDIENTS	1000g		3000g
WATER	665g	66.5%	1995g
PURE PISTACHIO PASTE *	89g	8.9%	267g
SUCROSE	67g	6.7%	201g
GLUCOSE DE60	67g	6.7%	201g
PURE PISTACHIO PASTE *	55g	5.5%	165g
CREMSUCRE	44g	4.4%	132g
DEXTROSE	11g	1.1%	33g
SALT	2g	0.2%	6g







4 FRUIT GRANITA

Add the sugar to the hot water and stir well to create a syrup.

Add the fruit purée and mix well.

Place into the freezer and run the appropriate cycle, or place in the blast chiller and stir from time to time until the desired consistency is reached.

PRODUCTS	Cléry & Charlotte Strawberry		Mango		Lemon	
FRUIT PURÉE	570g	1710g	500g	1500g	300g	900g
WATER	200g	600g	420g	1260g	534g	1602g
SUCROSE	200g	600g	80g	240g	140g	420g
GLUCOSE DE60	230g	690g	-	-	26g	78g
TOTAL WEIGHT	1000g	3000g	1000g	3000g	1000g	3000g





TOPPINGS, SAUCES & CONES







CRUNCHY COATING

Melt the couverture and cocoa butter (optional) at 115°F (45°C) and add the vegetable oil. Check that the mixture is at 85/95°F (30/35°C). Dip the popsicle and return to sub-zero temperature.

INGREDIENTS	COUVERTURES*	000	INSPIRATION**
COUVERTURES	1000g	1000g	1000g
VEGETABLE OIL	200g	100g	200g
COCOA BUTTER (optional)	100g	-	100g



For a crunchier glaze, you can add up to 10% cocoa butter. Create some extra texture with chopped almonds, chopped hazelnuts or crispy wheat flake cereal. Add these at room temperature!

OUR SELECTED -**VALRHONA PRODUCTS** 15390 - PASSION FRUIT INSPIRATION 14029 - ALMOND INSPIRATION 1123231 - STRAWBERRY INSPIRATION 1123234 - RASPBERRY INSPIRATION 19998 - YUZU INSPIRATION 4654 15390 OQO 73% CARAÏBE 66% PASSION FRUIT INSPIRATION

^{*}All Valrhona couvertures can be used for this purpose
**The entire Inspiration range can be used for this purpose





2 CARAMEL & VANILLA SAUCE

720g Glucose powder DE33

240g Whipping cream

240g Sweetened condensed milk

150g Sugar

4g Vanilla bean paste

1354g Total weight

Make a dry caramel with the sugar. Add the glucose, then immediately deglaze with the cream, sweetened condensed milk and vanilla mix you have heated together beforehand. Bring to a light boil, then set aside in the refrigerator.

3 P125 CŒUR DE GUANAJA SAUCE

720g Absolu Cristal240g P125 CŒUR DE GUANAJA

150g Water 1110g Total weight Bring the water and Absolu Cristal to the boil and create an emulsion. Keep refrigerated.

4 DULCEY SAUCE

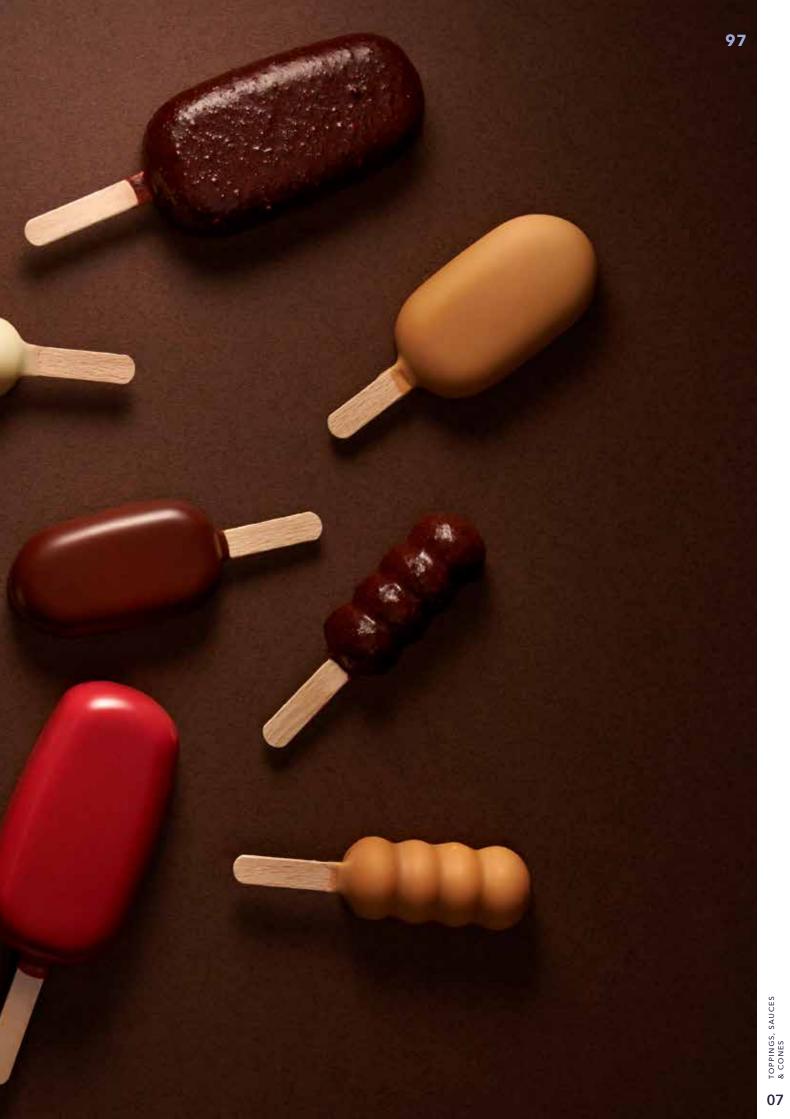
720g Absolu Cristal 240g BLOND DULCEY 35%

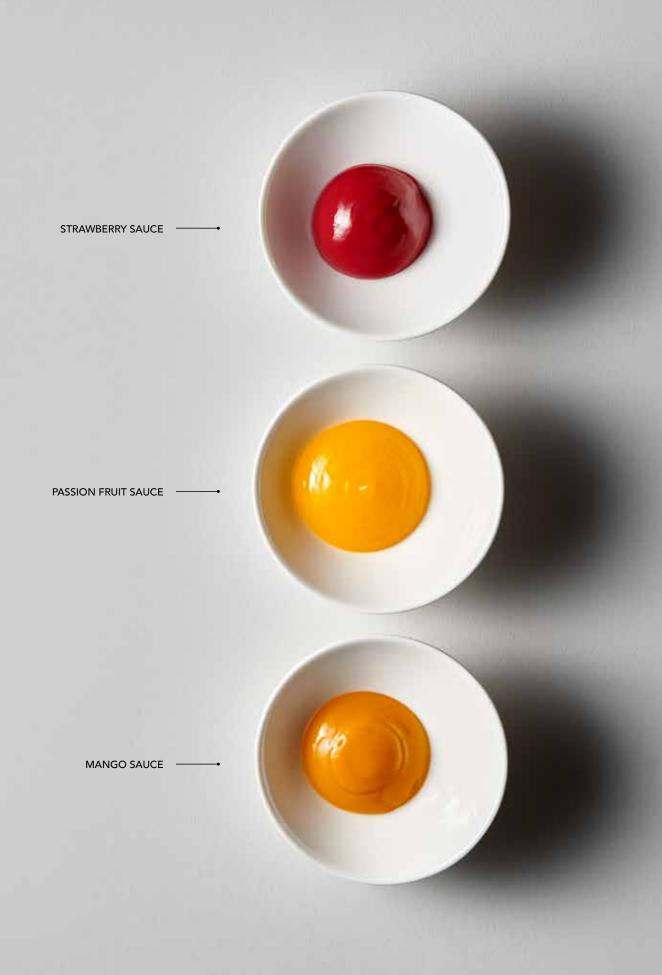
150g Water 1110g Total weight Bring the water and Absolu Cristal to the boil and create an emulsion. Keep refrigerated.

You can use all our chocolates in the same proportions as above to make your own marbling sauces or toppings.









5 FRUIT SAUCES

Weigh all ingredients carefully.

Blend with an immersion blender and leave to stand for 30 minutes at 40°F (4°C). Mix well and use.

FRUIT PURÉE	WEIGHT	DEXTROSE	GELCREM COLD
Bergamot	100g	35g	8g
Calamansi	100g	35g	8g
Lemon	100g	35g	8g
Lime	100g	32g	8g
Tangerine	100g	15g	8g
Blood Orange	100g	12g	8g
Yuzu	100g	35g	8g
Blackcurrant	100g	12g	6g
Cléry & Charlotte Strawberry	100g	30g	5g
Mara Strawberry	100g	30g	5g
Raspberry	100g	20g	5g
Sour cherry	100g	11g	6g
Blueberry	100g	20g	6g
Apricot	100g	20g	3g
White peach	100g	26g	3g
Pear	100g	12g	2g
Pineapple	100g	15g	4g
Passion Fruit	100g	22g	8g
Mango	100g	9g	2g
Coconut	100g	18g	4g





6 ABSOLU FRUIT COULIS

Weigh all ingredients carefully. Blend with an immersion blender and leave to stand for 30 minutes at 40°F (4°C). Mix well and use.



Please note that this recipe cannot be used for marbling, but it is ideal for topping or decorating all your iced desserts.

FRUIT PURÉE	WEIGHT	ABSOLU CRISTAL
Bergamot	700g	300g
Calamansi	600g	400g
Lemon	600g	400g
Lime	600g	400g
Yuzu	600g	400g
Blackcurrant	700g	300g
Cléry & Charlotte Strawberry	800g	200g
Mara Strawberry	800g	200g
Raspberry	700g	300g
Sour cherry	600g	400g
Blueberry	700g	300g
Apricot	700g	300g
White peach	800g	200g
Pear	800g	200g
Pineapple	700g	300g
Passion Fruit	600g	400g
Mango	850g	150g
Coconut	850g	150g



7 ALCOHOL SAUCE

150g Campari100g Absolu Cristal

60g Spritz 310g Total weight Weigh all ingredients carefully. Blend with an immersion blender and leave to stand for 30 minutes at $40^{\circ}F$ ($4^{\circ}C$).

Mix well and use.

8 ABSOLU CRISTAL NEUTRAL GLAZE

720g Absolu Cristal

150g Water 150g Dextrose 60g Glucose DE60 1350g Total weight Combine the water, dextrose and glucose DE60 and bring to a boil. Combine this with the Absolu Cristal glaze and blend. Use the glaze at 75°F (25°C) to spray the dessert.

VALRHONA



5010 ABSOLU CRISTAL NEUTRAL GLAZE 5kg



If you use Absolu Cristal with 10% water on ice cream, you will obtain an opaque finish.

This recipe allows you to keep this recipe allows you to keep it transparent and add shine while protecting your products.





9 ICE CREAM CONE

Melt the butter and mix it with the sifted flour and sugar. Add the eggs and water. Cook on a waffle iron and roll around a cone. Leave to cool and store in a dry place.

PRODUCTS	WATER	ALL-PURPOSE FLOUR	SUGAR	CLARIFIED BUTTER	WHOLE EGGS	MADAGASCAN VANILLA BEAN PASTE
PLAIN CONE MIX	140g	120g	100g	60g	55g	-
VANILLA CONE MIX	140g	120g	100g	60g	55g	5g paste 3g powder





Toppings & sprinkles

CHOPPED NUTS

NUTS BY ORIGIN

IDEAL SIZE

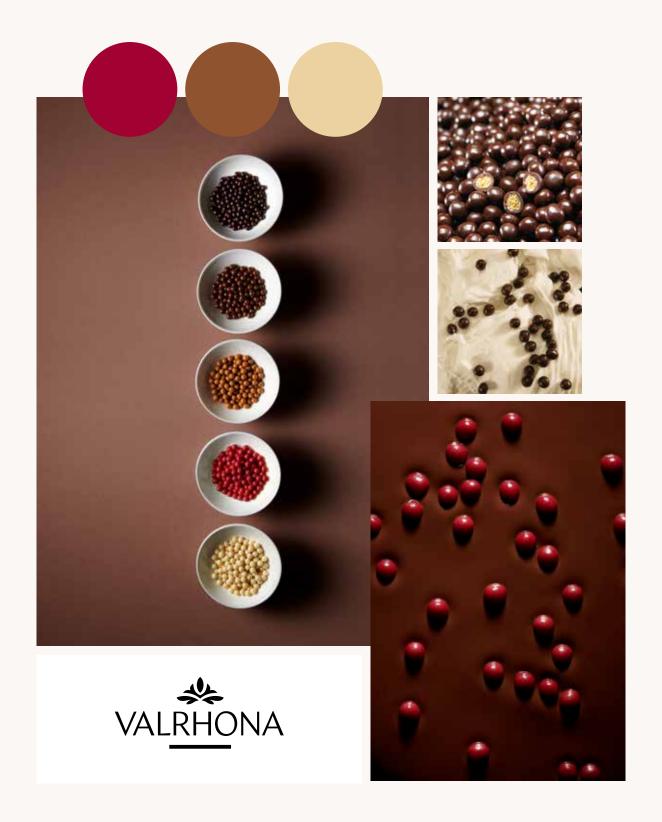
CAREFULLY CONTROLLED ROASTING

READY TO USE



CRUNCHY PEARLS

A PUFFED CEREAL CORE
WET-PROOF
PERFECT FOR INCLUSION
5 COLORS - Ø8MM



SPRINKLES

5 DIFFERENT SHAPES
AVAILABLE IN SEVERAL COLORS
WET-PROOF
READY TO USE



CANTONESE NUTS

LESS SUGARY THAN CLASSIC CARAMELIZATION
WET-PROOF
BEAUTIFUL SHINE
READY TO USE



CRISPIES

CRUNCHY FRUIT NUGGETS
WET-PROOF
IDEAL FOR DECORATION
CALIBRATED SIZE



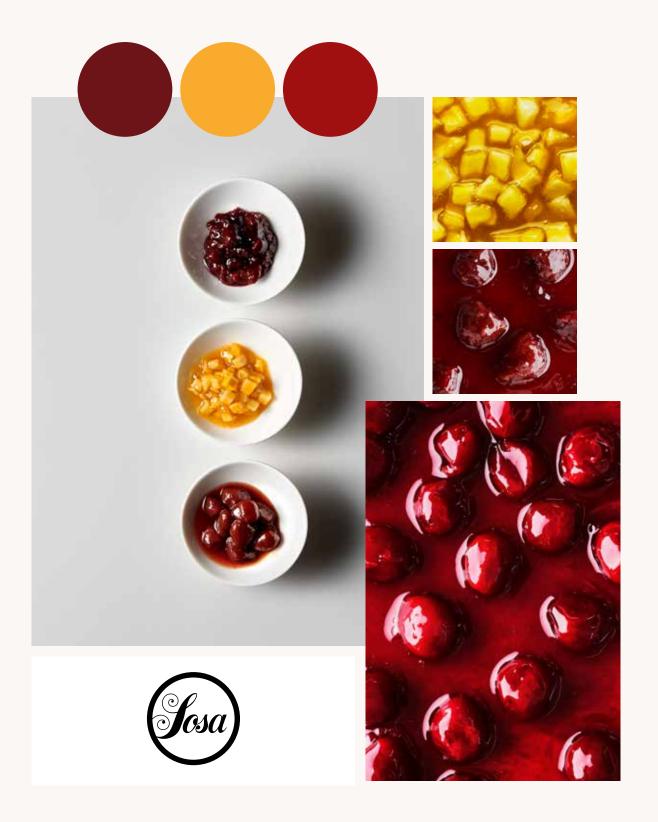
FRUIT & SAUCES

A RANGE OF SEMI-CANDIED FRUIT PIECES

COLD CANDYING (115°F/45°C)

FRESH FRUIT FLAVOR

READY TO USE





VALRHONA SELECTION: A COLLECTIVE OF ETHICALLY COMMITTED BRANDS



Valrhona Selection brings together leading brands that have committed to an ethical approach to gastronomy, including Valrhona, Sosa, Chocolatree, La Rose Noire, Norohy, Adamance, and Pariani, so that we can offer you a diversified range of products to meet your needs.

These brands are all driven by the same desire to develop as part of a sustainable collective. To this end, they have made a solid commitment to rolling out action that will pave the way for a future which respects both nature and people.



Valrhona's strength lies in the bond we create between producers, employees, and customers. It's this bond, forged every day, that enables cocoa farmers to make a better living from their trade, and our customers to take a more ethically committed approach to creativity thanks to the products and services we offer.



At Sosa Ingredients, we reinvent gastronomy to suit the times. With the help of top chefs, we develop ever more inspiring and innovative ingredients (including texturizers, freeze-dried products and Crispies, nuts and candied fruits) so that your creations can be as modern as they are unforgettably impactful on your customers.



We eat with our eyes first, so it's important to stand out! Give your festive recipes a festive but personal look in the blink of an eye with Valrhona molds and chocolate decorations made with 100% natural colors. Our driving force is a desire to offer you that extra-special bespoke finishing touch for your creations.



Norohy's mission is to shine a spotlight on the people who work in all different parts of vanilla's entire value chain. We strive daily to promote fairer, more enlightened ways of using vanilla, and a more transparent industry. This way, we can guarantee you optimal product traceability in natural, delicious, and ethically responsible flavoring solutions.

adamance

Our fruit purées are free from added sugar and additives and traced back to the original grower in 100% of cases. They respect the great taste of ripe fruit, as well as nature and the people who use agroecological techniques to work with it. As a result, ethically conscious makers can tell their customers all about the fruit they use.



Since 2010, we have been supplying you with the best varieties of nuts in Italy, including PGI "Nocciola Piemonte" hazelnuts and PDO "Verde di Bronte" pistachios. They come in all forms, including whole nuts, flour, chopped nuts, organic oils, pure pastes, creams and more. All our nut producers adhere to the strict "Filiera PARIANI" charter, which is more demanding than the criteria for PGI status and guarantees ingredients are of the highest quality. With its slogan "Research and Excellence", the company's mission is clear: we want to create exceptional, 100% natural ingredients and products to satisfy even the most demanding palates and inspire creative recipes.



NOTES

NOTES













