



ICONIC

FOR 100 YEARS

The essentials for ice cream makers

100% French
heritage
and expertise

**LOUIS
FRANÇOIS**
PARIS
1908



ICONIC

FOR 100 YEARS

100% French heritage and expertise

For more than a century, Louis François has been combining **excellence, passion and innovation** while **passing on its expertise to the next generations**. With our internationally-recognised French expertise, we develop **responsible solutions** that are tailored to our customer needs and kind to the environment. Our R&D department designs products that are more natural, with less sugar and less fat.

We provide our customers with personalised **technical support** and demonstrations with qualified chefs. Based near Paris, we prioritise local employment and French and European ingredients, which help ensure the high quality of our products and their sustainability.

Qualiopi
processus certifié

■ RÉPUBLIQUE FRANÇAISE

Quality certification issued by **AFNOR**
Certification under the following category:
TRAINING





EDITORIAL

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INTERNATIONAL CONSULTANT

LOUIS FRANÇOIS AMBASSADOR

Over the last few years, the ice cream sector has been evolving. Ice creams are becoming less sweet, less fatty, more plant-based, while remaining indulgent and with pronounced flavours.

In our wonderful industry, Louis François supports us with its classic products. For as long as we can remember, all our recipes have used DE40 Powdered Glucose Syrup, Super Neutrose or the ever-popular Stab 2000.

Today, it's essential we use other products in the Louis François range, still too little known, such as Inulin, DE25 Powdered Glucose Syrup and the new plant-based Stab Pure. These ingredients will help us make plant-based ice creams and use less sugar. We can then offer our customers recipes that are improved in terms of both taste and health.

As a brand ambassador, I have the privilege of enjoying Louis François technical support for developing my recipes and meeting new market expectations.

During our training courses, we analyse the functions and actions of the ingredients in the range, used in the many variants the ice cream world has to offer: crémeux, confits and glazes to name but a few.

With this booklet, discover the fun you can have with textures and the excellent stability and intensity of flavour you can achieve when you use the Louis François range.

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SYMBOLS



Plant-based



Heat-reversible



Can be used hot



Heat-resistant



Freeze-resistant



Can be used cold

NUTRITIONAL INGREDIENTS

Provide the nutrients needed for the body to function (proteins, carbohydrates, lipids, vitamins, etc.).

DRY EXTRACT

All ingredients except water (sugar, fibres, fats, proteins, etc.).

EMULSION

Mixture of two immiscible fluids, most often water and fat.

BUTYRIC FAT

Fat from dairy products.

ADDITIVES

Ingredients used for functional purposes that do not provide any nutrients. Classification by "E" according to function. They can be natural or synthetic.

AERATION

Adding air to a product.

ANTI-CRYSTALLISING AGENT

Ingredient that prevents or reduces the formation of large ice or sugar crystals which can alter a product's texture and quality.

MILK SOLIDS-NOT-FAT (MSNF)

Refers to what remains of milk when the water and fat are removed. Mainly composed of milk proteins, lactose and minerals.



THE DIFFERENT TYPES OF ICE CREAMS IN FRANCE

PRODUCT TYPE	CHARACTERISTICS	MINIMUM DENSITY
Ice pop or ice	Minimum 12% dry extract	450 g/L
Ice cream	Minimum 5% fat	450 g/L
Dairy ice cream	Minimum 2.5% milk fats Minimum amount of milk solids-not-fat (MSNF): 6%	450 g/L
Egg-based ice cream	Minimum 7% egg yolk Exclusively milk fats	550 g/L
Crème glacée	Minimum 5% milk fats May contain added milk proteins	450 g/L
Fruit ice cream with the name of the fruit	Minimum 15% fruit	450 g/L
Fruit or vegetable sorbet	Minimum 25% fruit or vegetables except for citrus (minimum 15% for acidic fruits) and nuts (minimum 5%)	450 g/L
Sorbet with “name of the alcohol”	Specify the spice, herb, flavouring preparation or alcohol	450 g/L
Full fruit sorbet	Minimum 45% fruit (20% for acidic fruits)	650 g/L

Sugars

Sugar is well known for the sweetness it develops, its role in balancing flavours and diffusing aromas. There are different types of sugars: some are used as bulking agents, others to prevent crystallisation or simply to reduce or increase the sweetness.

Sugars play an essential role in ice creams:

- **Sweetening and flavouring:** they help adjust sweetness, balance tastes and distribute flavours
- **Texture and creaminess:**
 - They help lower the freezing temperature to prevent ice creams from becoming too hard
 - Anti-crystallising agents: they reduce the formation of large ice crystals for a smooth, creamy texture

INVERT SUGAR



PROPERTIES

Anti-crystallising agent, with a strong sweet flavour. Sweetening power: 127.

APPLICATIONS

All applications

QUANTITY

Quantity: 2 to 5%



DE40 GLUCOSE POWDER



PROPERTIES

Anti-crystallising, helps reduce the amount of water compared with a liquid glucose syrup and makes calculations easier: one for one sugar replacement. Sweetening power: 47.

APPLICATIONS

All applications

QUANTITY

6% maximum



INULIN



PROPERTIES

Chicory fibre, provides dry matter, creaminess, body, helps reduce sugar and fat content. Sweetening power: 30.

APPLICATIONS

All applications

QUANTITY

2 to 5% or 20 to 50 g/kg



DEXTROSE



PROPERTIES

Purest form of glucose, lower sweetening power than sucrose (75), flavour less sweet than sucrose, anti-crystallising agent useful in rich, dense ice creams for greater smoothness and creaminess (high-cocoa content chocolate ice cream, flavours including pistachio, coconut, etc.). Gives a stronger sensation of freshness, enhances flavours. Lowers the freezing point.

APPLICATIONS

All applications

QUANTITY

Max. 6%



DE25 POWDERED GLUCOSE SYRUP



PROPERTIES

Provides more texture than DE40 glucose in sorbets with acidic fruits or alcohol while also having anti-crystallising properties. Sweetening power: 23.

APPLICATIONS

All applications

QUANTITY

Max. 6%



DE16 MALTODEXTRIN



PROPERTIES

Adds body to sorbets made from acidic fruits (low in fibre) or with low sugar content, allows adjustment of the dry extract. Sweetening power: 17.

APPLICATIONS

All applications

QUANTITY

30 to 50 g/kg



TREHALOSE



PROPERTIES

Made from tapioca, half as sweet as sucrose, prevents crystallisation, no Maillard reaction, from Japan. Sweetening power: 38.

APPLICATIONS

All applications

QUANTITY

15-50% of the sugar in ice creams, 5 to 8% of the total weight in sorbets



LACTOSE

PROPERTIES

Milk sugar, allows adjustment of the dry extract without adding sweetness (allergen warning). Sweetening power: 16.

APPLICATIONS

Pâtisserie, biscuits, confectionery, etc.

QUANTITY

To taste but beware of the impact on the MSNF.



FRUCTOSE



PROPERTIES

For "sugar-free" ice creams and sorbets. Strong sweet flavour. Sweetening power: 173.

QUANTITY

To taste.



Textures

TEXTURES GELLING

A setting or gelling agent is a texturising agent that stabilises (traps) the water in a mixture, forming a gel.

It can be animal- or plant-based (pectins, alginates, carrageenans, agar-agar).

In ice creams and sorbets, setting agents help:

- **Stabilise texture and aeration** and provide the right **viscosity** to reduce phase separation
- **Prevent recrystallisation** during freeze/thaw cycles
- **Slow melting down**

PECTIN 325NH95



PROPERTIES

Dissolves when heated and sets in the presence of calcium and/or acidity. Functions with a minimum dry extract of 30%. Provides creaminess and facilitates aeration.

APPLICATIONS

Ice creams, variegato-style sauces

QUANTITY

0.5 to 5% or
5 to 50 g/kg of weight



IOTA CARRAGEENAN



PROPERTIES

Flexible gel, freeze-resistant, reacts with calcium and proteins, heat-reversible (60°C), recovers its structure after blending.

APPLICATIONS

Ice creams

QUANTITY

0.1 to 3% or
1 to 30 g/kg



FIPURE PSYLLIUM



PROPERTIES

Setting agent, heat-reversible.

APPLICATIONS

Gluten-free topping

QUANTITY

2 to 20 g/kg

ALGINATE GF150



PROPERTIES

Cold-soluble setting agent, provides thickness and creaminess. Is structured with calcium. Great synergy with carrageenans.

APPLICATIONS

Milk-based ice creams, soft serve

QUANTITY

5 to 10 g/kg total or 0.5 to 1%

TEXTURES

THICKENING

Thickeners add viscosity to foods by absorbing water, giving them a stable, smooth texture. In ice creams and sorbets they help:

- **Increase viscosity** which helps achieve a creamier, smoother texture and prevents phase separation
- **Reduce the formation of ice crystals**
- **Stabilise** over time and resist melting

Thickeners can be plant-based or chemical and are resistant to most constraints (acidity, alcohol, etc.).

XANTHAN GUM



PROPERTIES

Properties: suspensoid thickener, stabiliser.

APPLICATIONS

Sauces, coulis, biscuits

QUANTITY

2 to 5 g/kg of total weight or 0.2 to 0.5%

LOCUST BEAN GUM



PROPERTIES

Thickener that adds viscosity to mixtures, provides creaminess, the most effective anti-crystallising agent in ice creams. Suspensoid thickener that ensures even distribution of inclusions (nuts, chocolate chunks, etc.).

APPLICATIONS

Fillings, ice creams and sorbets

QUANTITY

3 to 20 g/kg or 0.3 to 2%

TEXTURES

THICKENING

CMC



PROPERTIES

Cold-soluble thickener, helps adjust viscosity while preserving the softness of the ice cream or sorbet. Anti-crystallising agent.

QUANTITY

2 to 10 g/kg; 0.2 to 1% of total weight

FIPURE CITRUS



PROPERTIES

Thickener that adds viscosity to mixtures, provides creaminess, is an anti-crystallising agent and an emulsifier.

APPLICATIONS

Ice creams, crémeux, fillings

QUANTITY

2 to 20 g/kg

FIPURE FLAX



PROPERTIES

Thickener, stabiliser, transparent.

APPLICATIONS

Ice creams, fillings, coulis, sauce

QUANTITY

2 to 10 g/kg

GALLIGUM GUAR (GUAR GUM)



PROPERTIES

Thickener, adds viscosity to mixes. Provides creaminess, anti-crystallising.

QUANTITY

0.2 to 0.5% or 2 to 5 g/kg

TEXTURES

EMULSIFYING

Emulsifiers help blend fat and water making it easier to achieve a smooth mixture:

- Provide **creaminess**
- Facilitate **aeration**
- **Slow melting down**
- Prevent the elements in a mix from separating, **thereby increasing the shelf life of the mixture**

GLYCEROL MONOSTEARATE



PROPERTIES

Sunflower emulsifier, reduces separation in high-fat ice creams and improves aeration.

APPLICATIONS

Ice cream and confectionery

QUANTITY

1 to 10 g/kg
or 0.1 to 1%

GALLIMOUSSE



PROPERTIES

Blend of emulsifiers, milk proteins and vegetable fats, palm oil-free. Reduces separation in high-fat ice creams and improves aeration. Great synergy with E471.

APPLICATIONS

Ice creams, mousses and other aerated preparations such as foams

QUANTITY

60 g to 100 g/litre of milk.

TEXTURES

AERATING

Plant-based or animal-based, proteins play an important role in ice creams, as they:

- Act as a **natural emulsifier**: uniformly dispersing the fat for a smooth texture
- Facilitate **aeration**: improving the lightness and volume of ice cream
- Increase the **viscosity**: providing a creamy, melting texture

PROPURE PEA PROTEIN



PROPERTIES

Foaming.

APPLICATIONS

Ice creams, mousses and meringues

QUANTITY

5 to 20 g/kg

PROPURE FROID - POTATO PROTEIN



PROPERTIES

Foaming.

APPLICATIONS

Ice creams, mousses and meringues

QUANTITY

5 to 20 g/kg

The basics – milk



SUGARS

TEXTURES

THE BASICS – MILK

SPECIALITIES FOR ICE CREAM MAKERS

PAGE

Dairy products play several roles in the manufacture of ice creams:

- Addition of milk fat for **creaminess, smoothness** and **richness on the palate**
- Addition of proteins: help **emulsify the water and fat**
- Addition of lactose, milk's natural sugar: help maintain a **soft texture** even at low temperatures

SKIMMED MILK



PROPERTIES

Adds dry extract, flavour and creaminess. Improves aeration. Beware of the impact on the MSNF.

APPLICATIONS

Adjustment of the MSNF

QUANTITY

Depends on the MSNF.

WHOLE MILK 26% FAT CONTENT



PROPERTIES

Adds dry extract, flavour and creaminess. Improves aeration. Beware of the impact on the MSNF.

QUANTITY

Depends on the MSNF.

WHEY



PROPERTIES

Helps increase the ice cream's dry extract without adding a sweet flavour. Can dry out the recipe. Beware of the impact on the MSNF.

QUANTITY

From 4%, depending on the balance of the ice cream

Specialities

Stabilisers are used to preserve the organoleptic qualities of ice cream (taste, appearance, texture):

- Prevent the formation of large crystals, provide **creaminess**
- Facilitate **aeration**
- Help **distribute fat evenly**
- Extend **shelf life**: reduce texture variations (recrystallisation) during freeze/thaw cycles
- **Slow melting down**

SUPER NEUTROSE



PROPERTIES

Prevents crystallisation, improves smoothness, creaminess and shelf life of sorbets.

APPLICATIONS

Mainly used for sorbets

QUANTITY

0.3 to 0.5%
The quantity can be increased for acidic ice creams and sorbets or those containing alcohol.

STAB 2000



PROPERTIES

Stabiliser for ice creams made with fat, anti-crystallising agent, improves smoothness and creaminess and facilitates aeration.

APPLICATIONS

Ice creams, sorbets containing fat (e.g. chocolate, coconut, etc.).

QUANTITY

0.3 to 0.5%
The quantity can be increased for acidic ice creams and sorbets or those containing alcohol.

STAB PURE



PROPERTIES

Stabiliser for ice creams and sorbets without additives (made only from plant fibres).

APPLICATIONS

Ice creams and sorbets

QUANTITY

0.5 to 1%
The quantity can be increased for acidic ice creams and sorbets or those containing alcohol.

Culinary & technical workshops



100% FRENCH HERITAGE AND EXPERTISE

Founded in Paris in 1908, Maison Louis François has passionately passed on its discoveries, innovations, knowledge and expertise for over a century.

With its production site and laboratory near Paris, the company sells a wide range of products around the world for artisans and manufacturers in the bakery, pâtisserie, chocolate, confectionery and ice cream sectors and, of course, for all chefs who prepare, imagine, explore and reinvent fine food.



CUSTOMISED TRAINING

At its Training Centre, Maison Louis François has an innovation hub with a team of engineers, technicians and chefs ready and at your service to analyse textures and explain the excellent properties of its own food ingredients.

The innovation hub will help you master different textures, reach new markets and respond to current trends (plant-based, less sugar, less fat, lactose-free, an improved nutritional rating, etc.).



ONE-DAY PACKAGE

At Maison Louis François
(Marne-La-Vallée)

OR

PERSONALISED PACKAGE

At Maison Louis François
or at your company



Quality certification issued by AFNOR
Certification under the following category:
TRAINING

FAMILY / CODE	DESCRIPTION	PACKAGING	QUANTITY	PAGE
SUGARS				
1364D	DE40 DEHYDRATED GLUCOSE 25 KG	1 X 25	3 to 5% of total weight	6
1365H	DE40 DEHYDRATED GLUCOSE 5 KG	5 X 5	3 to 5% of total weight	6
6120	DE40 DEHYDRATED GLUCOSE 1 KG	12 X 1	3 to 5% of total weight	6
330D	DEXTROSE 25 KG	1 X 25	2 to 5% of total weight	7
455B	DEXTROSE 5 KG	5 X 5	2 to 5% of total weight	7
450A	DEXTROSE 1 KG	6 X 1	2 to 5% of total weight	7
1400L	GALLIA INVERT SUGAR 15 KG	1 X 15	To taste	6
1401J	GALLIA INVERT SUGAR 1 KG	12 X 1	To taste	6
10216	TREHALOSE 20 KG	1 X 20	To taste	7
10217	TREHALOSE 1 KG	6 X 1	To taste	7
10165	INULIN 20 KG	1 X 20	2 to 5% of total weight	6
10167	INULIN 1 KG	12 X 1	2 to 5% of total weight	6
1362D	DE25 DEHYDRATED GLUCOSE 25 KG	1 X 25	3 to 5% of total weight	7
1912D	DE16 MALTODEXTRIN 25 KG	1 X 25	3 to 5% of total weight	7
10166	DE16 MALTODEXTRIN 5 KG	5 X 5	3 to 5% of total weight	7
1211J	LACTOSE 25 KG	1 X 25	To taste	7
1250F1	FRUCTOSE 25 KG	1 X 25	To taste	7
10091	FRUCTOSE 1 KG	6 X 1	To taste	7
PECTINS				
1631K	PECTIN 325NH95 25 KG	1 X 25	3 to 50 g/kg of weight	8
1630A	PECTIN 325NH95 1 KG	12 X 1	3 to 50 g/kg of weight	8
10099	PECTIN 325NH95 150 G	40 x 150 g	3 to 50 g/kg of weight	8
GELLING AGENTS				
10046	IOTA CARRAGEENAN 25 KG	1 X 25	1 to 30 g/kg of total weight	8
10117	IOTA CARRAGEENAN 1 KG	6 X 1	1 to 30 g/kg of total weight	8
10042	IOTA CARRAGEENAN 150 G	40 x 150 g	1 to 30 g/kg of total weight	8
10288	FIPURE PSYLLIUM 25 KG	1 X 25	0.2 to 2% of total weight	9

FAMILY / CODE	DESCRIPTION	PACKAGING	QUANTITY	PAGE
10289	FIPURE PSYLLIUM 1 KG	12 X 1	0.2 to 2% of total weight	9
10296	FIPURE PSYLLIUM 150 G	40 x 150 g	0.2 to 2% of total weight	9
141F	ALGINATE GF 150 25 KG	1 X 25	5 to 10 g/kg of total weight	9
140A	ALGINATE GF 150 1 KG	6 X 1	5 to 10 g/kg of total weight	9
10133	ALGINATE GF 150 150 G	40 x 150 g	5 to 10 g/kg of total weight	9

THICKENERS

1825F	XANTHAN GUM 25 KG	1 X 25	2 to 5 g/kg of weight	9
1821A	XANTHAN GUM 1 KG	6 X 1	2 to 5 g/kg of weight	9
10024	XANTHAN GUM 150 G	40 x 150 g	2 to 5 g/kg of weight	9
794F	LOCUST BEAN GUM 25 KG	1 X 25	3 to 20 g/kg of weight	9
793A	LOCUST BEAN GUM 1 KG	12 X 1	3 to 20 g/kg of weight	9
10130	LOCUST BEAN GUM 150 G	40 x 150 g	3 to 20 g/kg of weight	9
10284	FIPURE CITRUS 15 KG	1 X 15	0.2 to 2% of total weight	10
10285	FIPURE CITRUS 1 KG	9 X 1	0.2 to 2% of total weight	10
10294	FIPURE CITRUS 150 G	40 x 150 g	0.2 to 2% of total weight	10
10286	FIPURE FLAX 15 KG	1 X 15	1 to 30 g/kg of weight	10
10287	FIPURE FLAX 1 KG	12 X 1	1 to 30 g/kg of weight	10
10295	FIPURE FLAX 150 G	40 x 150 g	1 to 30 g/kg of weight	10
720G	GALLIGUM GUAR 25 KG	1 X 25	0.2 to 0.5% of total weight	10
720A	GALLIGUM GUAR 1 KG	12 X 1	0.2 to 0.5% of total weight	10
10301	GALLIGUM GUAR 150 G	40 x 150 g	0.2 to 0.5% of total weight	10
3422J	CMC 25 KG	1 X 25	0.2 to 1% of total weight	10
10034	CMC 1 KG	6 X 1	0.2 to 1% of total weight	10
10083	CMC 150 G	40 x 150 g	0.2 to 1% of total weight	10

EMULSIFIERS

722H	GALLIMOUSSE 25 KG	1 X 25	60 to 100 g/L of milk	11
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FAMILY / CODE	DESCRIPTION	PACKAGING	QUANTITY	PAGE
EMULSIFIERS				
723A	GALLIMOUSSE 1 KG	9 X 1	60 to 100 g/L of milk	11
1352K	MONOSTEARATE GLYCEROL 25 KG	1 X 25	1 to 10 g/kg of weight	11
1352A	MONOSTEARATE GLYCEROL 1 KG	9 X 1	1 to 10 g/kg of weight	11
10055	MONOSTEARATE GLYCEROL 150 G	40 x 150 g	1 to 10 g/kg of weight	11
AERATING AGENTS				
10265	PROPURE PEA PROTEIN 10 KG	1 X 10	0.5 to 2% of total weight	12
10266	PROPURE PEA PROTEIN 1 KG	9 X 1	0.5 to 2% of total weight	12
10267	PROPURE PEA PROTEIN 150 G	40 x 150 g	0.5 to 2% of total weight	12
10360	PROPURE FROID - POTATO PROTEIN 12.5 KG	1 X 12.5	0.5 to 2% of total weight	12
10361	PROPURE FROID - POTATO PROTEIN 1 KG	9 X 1	0.5 to 2% of total weight	12
10362	PROPURE FROID - POTATO PROTEIN 100 G	40 x 100 g	0.5 to 2% of total weight	12
BASICS - MILK AND EGGS				
1221F	SKIMMED MILK 25 KG	1 X 25	3% total weight, to adapt to the balance of the ice cream	13
1220A	SKIMMED MILK 1 KG	6 X 1	3% total weight, to adapt to the balance of the ice cream	13
1226F	WHOLE MILK 26% FAT CONTENT 25 KG	1 X 25	3% total weight, to adapt to the balance of the ice cream	13
10200	WHOLE MILK 26% FAT CONTENT 1 KG	12 X 1	3% total weight, to adapt to the balance of the ice cream	13
1215G	WHEY 25 KG	1 X 25	From 4% total weight, to adapt to the balance of the ice cream	13

FAMILY / CODE	DESCRIPTION	PACKAGING	QUANTITY	PAGE
FOR ICE CREAM MAKERS				
1970K	STAB 2000 10 KG	1 x 10	3 to 5 g/L	14
1971A	STAB 2000 1 KG	12 X 1	3 to 5 g/L	14
10125	STAB 2000 150 G	40 x 150 g	3 to 5 g/L	14
1991H	GALLIA SUPER NEUTROSE 10 KG	1 x 10	3 to 5 g/L	14
1990B	GALLIA SUPER NEUTROSE 1 KG	12 X 1	3 to 5 g/L	14
10126	SUPER NEUTROSE 150 G	40 x 150 g	3 to 5 g/L	14
10324	STAB PURE 10 KG	1 X 10	0.5 to 1% of total weight	14
10325	STAB PURE 1 KG	6 X 1	0.5 to 1% of total weight	14
10326	STAB PURE 150 G	40 X 150 g	0.5 to 1% of total weight	14



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