



ABALONE GELATIN

Transforming Life





37 Degrees Centigrade –
And The Gelatin Fun Can
Begin



CONFECTIONERY PRODUCTS INCONCEIVABLE WITHOUT GELATIN

Gelatin is a multi-talented ingredient. Its gelling, stabilizing, emulsifying, texturizing, thickening and binding functionalities are complemented by numerous characteristics that make it irreplaceable in the confectionery applications.

Powerful functionalities and properties of Gelatin helps to create innovative and healthy foods while maintaining their taste, texture and shelf stability. It can be used alone or in combination with other texturizers to manufacture products such as gummy bears, wine gums, pastilles, yogurt gums, deposited liquorice, fruit chews, etc. Gelatine can be characterized in different ways and primarily by its gelling power and thermoreversibility. As a protein, Gelatine has the unique ability to form a thermoreversible gel when the solution is cooled, but which subsequently liquefies when heated. This is the most important property of Gelatine and the key to a vast range of confectionery applications.

A natural protein

Gelatin is obtained through partial hydrolysis of collagen contained in animal skins and bones. It is a natural protein food typically consisting of 85% protein, 13% water and 2% minerals with a calorific value of 370 kcal per 100g.

Nutritional Value

Gelatin is a fully digestible protein with a calorific value of 4 kcal/g. It contains 18 different amino-acids, including 8 of the 9 essential amino-acids that are essential to our body. Only tryptophan is missing. It is particularly rich in glycine, proline and hydroxyproline, which, together, represent almost 50% of the composition of the molecule

Clean label ingredient

Gelatin is a food ingredient and not a food additive with an E-Number. Today's consumers are more and more conscious about the components used in their daily products. The request for so-called "clean labelling" is growing. Gelatin as a natural foodstuff meets this demand perfectly.

GELATIN - A UNIQUE INGREDIENT WITH UNMATCHED FUNCTIONALITIES

Binding & Thickening

Gelatine acts as an excellent binder and thickener in a wide range of confectionery products. It can be used to manufacture products such as sugar paste, deposited liquorice, fruit chews, etc. Binding and thickening are the most important properties of Gelatine and the key to a vast range of confectionery applications.

Gelling

Gelatine can be characterized in different ways and primarily by its gelling power and thermoreversibility. As a protein, Gelatine has the unique ability to form a thermoreversible gel. This is the most important property of Gelatine and the key to a vast range of confectionery applications.

Texturizing

Gelatine is an important texturizer in a wide range of confectionery products. It can be used alone or in combination with other texturizers to manufacture products such as gummy bears, wine gums, pastilles, yogurt gums, deposited liquorice, fruit chews, etc.

Melting at body temperature

Melting point of gelatin is close to body temperature, yielding a mouth feel far superior to that of other fat substitutes and maintaining the pleasure of eating healthy foods.

Whipping & Coating

In aerated confectionery, dragées and coated chewing gums, gelatine acts as an excellent whipping and coating agent, giving products a pleasant mouthfeel, a feeling of indulgence and long-lasting flavor release.

Stabilization & Emulsification

Gelatine is used in confectionery products for its emulsifying properties. A small quantity of Gelatine is used to improve emulsification and to stabilize the texture of the finished product.



Unique Ingredient
Unique Functionalities





Let Gelatin melt – then simply enjoy



LOW SUGAR CONFECTIONERY PRODUCTS WITHOUT GELATIN? THIS IS HARD TO IMAGINE.

For many years, the aim of the confectionery industry has been to reduce or even to totally replace sugar and corn syrup to produce products that are non cariogenic, suitable for diabetics and if possible reduced in calorie content. As a result of its unrivalled gelling properties, Gelatine is the ideal ingredient to reformulate lighter confectionery and yet give a similar texture to that of traditional candy.

The substitution of sugar and corn syrup by sugar substitutes such as sugar alcohol (polyol) requires a robust gelling agent. Only Gelatine can perform this function without compromising texture and flavor release. Due to the poor image of sugar alcohols / polyols, a proportion of these sugar substitutes is replaced by bulking agents with a positive image such as polydextrose, oligofructose... Once again, Gelatine is the best candidate as far as gelling and providing a similar texture to traditional sugar confectionery are concerned.

As confectionery is an indulgence consumers are not prepared to compromise on taste and/or texture so the confectionery industry returns to its original values making confectionery with a great taste, pleasant texture and now including, last but not least a healthy aspect. Introducing fruit juice, fruit pulp, vitamins, calcium, hydrolyzed collagen... is yet another challenge for the gelling agent. Again the performance of Gelatine as gelling agent is unique giving a texture similar to traditional sugar confectionery.

GELATIN IN CONFECTIONERY APPLICATIONS



JELLY & AERATED CONFECTIONERY



Marshmallows

Aerated confectionery can be defined as an aerated gelled product containing a mixture of carbohydrates, mainly sugar, different types of corn syrup, whipping and/or stabilizing agents, flavor and color. The aeration technique enables a liquid to be transformed into a foam by incorporating a certain volume of air in the form of newly divided bubbles. Aerating the product leads to a softer texture, modification of the mouthfeel, a change in color, and decreased sweetness.

A typical example of aerated confectionery containing Gelatine is marshmallow. This product generally contains between 3 and 4% high gel-strength Gelatine. Lower gel-strength Gelatine can be used at higher concentrations (up to 5 to 6%), but will result in chewier finished products.



Gummy Bears

Gelatine jelly confectionery can be defined as a highly concentrated mixed sugar/corn syrup mass mixture that has been formed into a gel by adding Gelatine. The mass is mainly composed of saccharose, glucose syrup, other types of sugar (i.e. invert sugar, dextrose), Gelatine, acid, flavor and color. The best known example is the gummy bear.

Do you know why gummy bears are one of the most successful sweets worldwide? It's the gelatine: it provides the shiny, crystal clear appearance, the elastic texture, the tender melting sensation in your mouth and that intense flavor release. No other ingredient could ever replicate the functionality of gelatine.

CHEWY CONFECTIONERY



Fruit chews

These confectionery products are characterized by low aeration, a high total soluble solids content, and incorporation of fats. Gelatine is used in these products for its emulsifying properties, its foaming action, to improve chewability, and to control crystallization of the saccharose.



Toffee

Toffees are manufactured from a mixture of milk, sugar, corn syrup, fats and avors, to which a “frappé” can be added following concentration of the sugars. A small quantity of Gelatine is used to improve emulsi cation and to stabilize the texture of soft toffees.



Nougat

Nougat comprises a mixture of sugars, corn syrup, in certain cases honey, invert sugar and fats, with the addition of a “frappé” following concentra- tion. Gelatine is a component of this “frappé”, and is used to stabilize the texture of the nished product.

GELATIN IN CONFECTIONERY PRODUCTS

Confectionery products without gelatin? This is hard to imagine.

Gelatin type or grade has to be carefully selected according to the confectionery products to be manufactured. Bovine or pig skin gelatins are generally used to prepare confectionery products. The table below describes the most appropriate gelatins to be used.

	Gel strength (Bloom)	Viscosity	Other characteristics	Gelatine Content %
Jelly item to be oiled or sugar coated	200 - 275	Medium - Low	Color, clarity	6 - 9
Gum	150	Low	Color	10 – 15
Wine gum	125	Medium - Low	Color	3 – 8
Liquorice	100	Medium - Low		4 - 8
Marshmallow	250	Medium	Foaming Power	3 – 5
Meringues	100	Medium	Foaming Power	2 - 5
Extruded aerated Items	125	High – Medium	Foaming Power	3 – 7
Chewy candy	125	Medium	Foaming Power	0.5 – 2.5
Caramels	100	Medium	Foaming Power	0.2 – 1
Toffees	100	Medium		0.2 - 1



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