

Chamtor

GLUCOR, H-MALTOR and FRUCTOR

Glucose syrups are made by hydrolyzing starch, polymer of D-dextrose which constitute the reserve molecules of vegetables and, in particular, wheat. The degree of hydrolysis is measured by the Dextrose Equivalent (D.E.) which corresponds to the quantity of reducing sugars, expressed in the dextrose equivalent for 100 grams of solids. The higher the D.E., the more the product is hydrolyzed, but be aware that glucose syrups with the same D.E. can contain different glucidic components, according to the hydrolysis method used, and each product therefore has distinct properties.

GLUCOR and **H-MALTOR** ranges offer you a wide selection of starch hydrolysates, with D.E.s which are higher or equal to 30, with various glucidic profiles that are specific for each application. A D.E. of around 30 to 45, is considered a low D.E., from 45 to 60 is considered a medium D.E. and a high D.E. ranges from 60 to 96.

CHAMTOR also offers you **FRUCTOR** glucose-fructose syrups, which all contain fructose, an isomer of dextrose obtained by an enzymatic reaction or by the hydrolysis of the inulin of chicory. This molecule is appreciated for its high sweetening capacities and high solubility as well as its capacity to depress the water activity. **FRUCTOR** glucose-fructose syrups are offered in a variety of forms, which are differentiated according to their glucidic components (the quantity of fructose varying from 9 to 42% ...), and adapted to suit your needs.

We are at your service to help you find the product(s) that best suit(s) your needs and expectations.

MIXTOR

In many sectors of the food industry, glucose syrups are often associated with sucrose which has particular sensory, physico-chemical and marketing qualities. CHAMTOR offers you its **MIXTOR** blends of ready-to-use and custom-made liquid sugars. They can be used with liquid sugars, glucose and/or fructose syrups.

MIXTOR products are used for many different applications, like refreshing drinks and liquors, fruit preserves (jams, compotes, fruit syrups,...), baked goods, Viennese pastries, pastries, dairy products, etc.. They make it possible to simplify the production cycle of products, by limiting the steps involving the dissolution of granulated sugars and blending, and by lessening the number of storage tanks needed.

CHAMTOR is at your disposal to help you define the glucidic composition and the concentration you need and to guarantee the skillful dosing of different sugars that make up the **MIXTOR** blends.

VITALOR

VITALOR vital wheat gluten is the insoluble protein fraction in the liquid found in wheat, separated from the flour by the wet method. It's a natural protein, dried and in the form of a cream colored powder. When it is rehydrated, the vital wheat gluten regains all of its functional properties. It has, in particular, the unique capacity to form a cohesive, visco-elastic dough, capable of absorbing 1.5 to 2 times its weight in water. This visco-elasticity and the rapidity with which it can absorb water are why it is called "vital". The two main

protein components of vital gluten, glutenins and gliadins, interact in the presence of water and are what give the product its visco-elastic properties. The glutenins have a heavier molecular weight which contributes to the elasticity whereas the gliadins, with a lower molecular weight, increase the extensibility of the product.

During the making of dough, its aptitude to form a tri-dimensional network during the kneading of dough helps to constitute a die which encompasses the starch grains and other components of the dough, and also retains the gases that are released during fermentation (CO₂) and during the baking process (steam). The high temperatures during cooking irreversibly alter the gluten proteins and bring about cross-linkages which therefore stabilize the structure of the finished product.

VITALOR can be used in your baked products, Viennese baked goods, as well as your pastries. It can also be used in the production of breakfast cereals, snack foods, pastas, and meat products.

GBS-P51

GBS-P51 soluble wheat gluten is a cream colored powder, obtained by the enzymatic hydrolysis of gluten and drying by atomization. Reducing the size of polypeptide chains increases their solubility and creates new properties. Solubility is a pH function, and **GBS-P51** has a high rate of solubility with relatively acid pHs. **GBS-P51** can be used for many applications.

Thanks to its "relaxing" effect which improves the workability of dough, it is used as a correcting solution for flours in the making of breads, elaborated breads, sandwich breads, hamburger buns, and pizza dough. By making the production of puffed pastry easier and lowering the rising period, its use is adapted to the making of puffed pastry, croissants, and chocolate-filled pastry. **GBS-P51** increases the softness of products and improves the development during the baking of cakes, pound cakes, and sponge cakes.

The amino acids in **GBS-P51** contribute to its nutritional values which could benefit lactic substitutes, dietary and energy foods and drinks, ready-made meals, sauces and certain delicatessen products.

NATILOR

Native wheat starch **NATILOR** is a fine, white, tasteless powder. It is composed of semicrystalline granules, mostly composed of a mixture of two polymers, amylose and amylopectin. Variable according to their botanic origin, they make up for 25 and 75% of the wheat starch respectively.

The structural changes that starch is subjected to when heated with water and eventually cooled, are what give their texture to many foods. They particularly improve the texture of cakes, sponge cakes, biscuits, snack foods, pastries and certain dairy products. The texture of emulsified sauces can be controlled by using a combination of wheat and corn starches.

In the making of delicatessen products, surimi-based products as well as coatings for frying, wheat starch is an excellent binder. Thanks to the large quantity of small granules, the large contact surface between the starch and the coated product helps improve adhesion.

Finally, in some cases, wheat starch can be an advantageous replacement for wheat flour, notably when you don't want to alter the natural taste of a product or during the making of gluten-free products.

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