



Fidelinka

FIDELINKA SKROB D.O.O. SUBOTICA





ABOUT US

The production of wheat-based starch and gluten in the fertile Pannonian Plain, where the city of Subotica lies, started more than 150 years ago. The intensive development of milling along with the production of pasta and baked goods were brought about by Fidelinka, a company with a 60-year-long history. In the 21st century, starch and gluten production has become the company's original, unique and recognizable trademark.

International certificates are a proof of the persistently high quality of Fidelinka's products achieved and maintained through continual monitoring of the quality of raw materials and the technological processes involved.

By adopting global technologies, increasing the production capacity and setting up a built-in laboratory, we are constantly improving the quality of our materials, products and services.

Our products are exported to over 20 countries in the European Union and Asia. The quality of products we provide conforms even to the extremely demanding market of Japan. We are continuously striving towards entering new markets and positioning our products successfully.

A highly-educated, creative and forward-thinking team is another guarantee of the stability, success and fast growth of the company. Our international cooperation in the field of innovative technologies makes Fidelinka an open and unlimited source of potential.



WHEAT

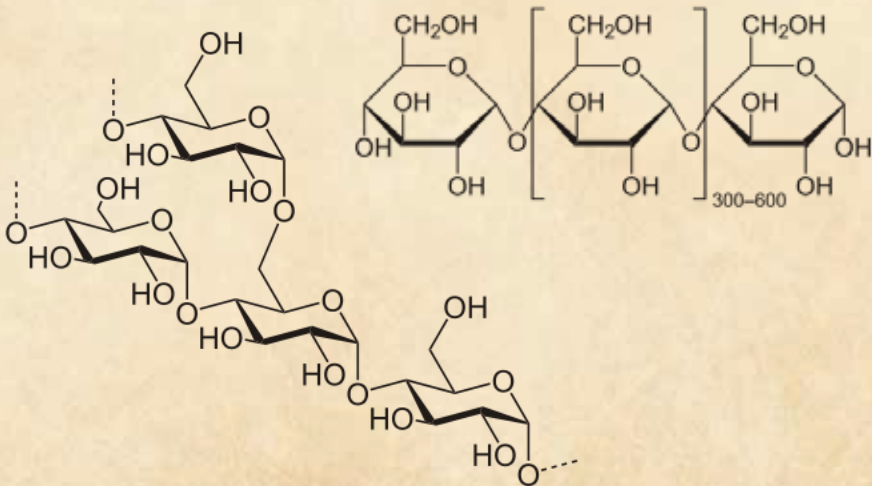
STARCH

Pure natural polymer



Starch is the major constituent of wheat (*Triticum aestivum* L.) endosperm and an important structural component in many food products made from wheat flour. Wheat flour contains 70-73% of starch. It is white powder with neutral smell and taste, derived from wheat and wheat flour. It is obtained by mixing wheat flour and water and is produced by washing wheat flour dough.

Starch is called a complex carbohydrate because it is made up of many sugar molecules linked together. It has two main parts: amylose and amylopectin. Amylose (20-30%) is a straight or linear chain of sugar molecules linked together, consisting of α-(1-4)-linked D-glucan chains. Amylopectin (70-80%) is a branched chain of sugars, α-(1-4)-linked D-glucan chains with α-(1-6)-linked branches.



PRODUCT SPECIFICATION

CHARACTERISTICS	PARAMETERS	REFERENCE VALUES
SENSORY	The smell and taste Color Appearance Storage pests alive or dead Metal shavings	characteristic white powdery Not allowed to attend Not allowed to attend
PHYSICO-CHEMICAL	Moisture content Ash content The fat content Protein content (Nx6.25) Content of SO2 The presence of synthetic dyes	max 14% max 0.25% max 0.4% max. 0.4% max 50 mg/kg Not allowed to attend
NUTRITION VALUE	Energetic value Protein (Nx5.70) Carbon hydrate Fat	344/1463 kcal/kJ/100g 0,27 g/100g 84,26 g/100g 0,47 g/100g
MICROBIOLOGICAL	The total number of microorganism Enterobacteriaceae Molds and yeasts Escherichia coli Salmonella	max 10000 CFU/g max 10 CFU/g max 100 CFU/g negativ CFU/g negativ CFU/25g
THE PRESENCE OF METALS AND METALLOIDS	Lead (Pb) Mercury (Hg) Cadmium (Cd)	max 0,4 mg/kg max 0,03 mg/kg max 0,1 mg/kg
THE PRESENCE OF MICOTOXINS	Aflatoxin (B1+B2+G1+G2) Aflatoxin (B1) [µg/kg] Ochratoxin A [µg/kg] Zearalenon [µg/kg] Deoxinivalenol (DON)	max 4 µg/kg max 2 µg/kg max 3 µg/kg max 75 µg/kg max 750 µg/kg
GEOGRAPHICAL ORIGIN OF RAW MATERIALS	Republic Of Serbia	
ALLERGEN INFO	May contain traces of gluten.	
DECLARATION OF GMOs	The product is not genetically modified and should not contain GMOs.	
PACKAGING	- 25/1 kg in white kraft bags / 750 - 1000kg per pallet, marked and wrapped with stretch foil - 1000 kg in PP bags - Bulk in silo truck	
WAY OF DISTRIBUTION (TRANSPORT)	Hygienic and technically correct vehicles (truck, car – tank, container, silo truck) designed for the transport of food.	
SHELF LIFE	24 months	

WHEAT STARCH

Pure natural polymer



Application and benefits

Starch and the products derived from it are used in food, brewing, pharmaceutical, paper, textile and adhesive industries. In the food industry starch is used as a thickener, filler, binder and stabilizer in products such as soups, custard powders, pie fillings, sausages and processed meats, ice cream, sauces and gravies, baby foods, bakery products and baking powder.

Baked goods

- can replace up to 30% flour in cakes to improve volume, eating quality, symmetry, and tenderness
- controls batter viscosity to improve cell structure in cakes
- controls spread and thickness in cookies
- provide structure with desired texture in cream puffs and cream pie fillings
- permits shortening reduction while retaining tenderness

Dry mixes

- controls absorption, moistness and structure in cake mixes
- control viscosity and increases tenderness in cake type donut mixes
- provides high solid without excessive thickening in gravies, sauces and soup bases
- provides soft body in pudding and dessert mixes
- provides bulk and flow ability protection without masking delicate flavors

Canned or glassed food

- gives soft consistency with clear flavor release in baby foods
- provides smooth mouth feel and soft texture in puddings
- contributes to spoonable salad dressing soft, full body and emulsion stability
- provides fast heat penetration for thickened sauces, gravies, and soup with improved flavor

Other products

- promotes binding, adhesion, and low oil pickup in breading and batters
- control body and texture of sour cream and dips
- acts as puffing aid and flake strengthener in cereals

Non food industry

The pharmaceutical industry uses it in the manufacture of pills. It is used as filler because it is bland and odorless. The textile industry uses starch for coating the fiber before weaving, and the dye pastes used for printing have starch in them. In the paper industry a starch solution is applied to surfaces of paper to increase the strength of the paper and give it a better finish. Starch also makes a very good adhesive or glue and is used to make cardboard cartons, boxes and containers. The gum used on the back of stamps and on envelope flaps is also made from starch.

VITAL WHEAT
GLUTEN

Vegetable protein complex



Vital wheat gluten is a high-grade protein in fine powder extracted from high quality wheat flour. Wheat flour contains between 8 -14.5% protein. The drying process is carefully regulated and controlled in order to preserve its original unique characteristics such as elasticity and extensibility. Dry gluten regains its original characteristics when mixed with water, readily forms cohesive and elastic dough. The water absorption ability and the viscoelasticity have been related to vitality. Vital wheat gluten contains mainly two groups of proteins namely gliadins and glutenins.

Gliadins have a lower molecular weight and behave as viscous liquid, while glutenins are able to form polymeric networks and act as cohesive elastic solid. Both gliadins and glutenins contribute to the viscoelastic properties of wheat dough. A long “stretch” with retention of an excellent elasticity are the two most important properties. The flavor and taste of gluten is almost neutral, the colour is natural creamy, it has a high waterbinding capacity and a constant quality.

PRODUCT SPECIFICATION

CHARACTERISTICS	PARAMETERS	REFERENCE VALUES
SENSORY	The smell and taste color appearance Storage pests alive or dead metal shavings	characteristic yellow powdery Not allowed to attend Not allowed to attend
PHYSICO-CHEMICAL	Moisture content Protein content (Nx5,7) on dm Ash content The fat content Vitality Sieve analysis on 300µm Sieve analysis on 150µm	max 12% min 77% max 2,00% max 3% min 85 max 0.50% max 25%
MICROBIOLOGICAL	Aerobic plate count Thermophilic bacterial spores Coliforms E. Coli Mold Yeast Salmonella Bacillus cereus Staphylococcus aureus	max 10000 CFU/g max 300 CFU/g negative/0.2g negative/2,22g max 100 CFU/g max 100 CFU/g negative/25g negative/0.01g negative/0,01g
NUTRITION VALUE	Energetic value Protein (Nx5.70) Carbon hydrate Fat	399 kcal/kJ/100g 71.92 g/100g 5.37 g/100g 9.51 g/100g
THE PRESENCE OF MICOTOXINS	Aflatoxin (B1+B2+G1+G2) Aflatoxin (B1) Ochratoxin A Zearalenon Deoksinivalenol (DON)	max 4 µg/kg max 2 µg/kg max 3 µg/kg max 75 µg/kg max 750 µg/kg
GEOGRAPHICAL ORIGIN OF RAW MATERIALS	Republic Of Serbia	
ALLERGEN INFO	Vital wheat gluten is an alergen.	
DECLARATION OF GMOs	The product is not genetically modified and should not contain GMOs.	
PACKAGING	- 25 kg in white kraft bags / 750 - 1000kg per pallet, marked and wrapped with stretch foil - 1000 kg in PP bags - Bulk in silo truck	
WAY OF DISTRIBUTION (TRANSPORT)	Hygienic and technically correct vehicles (truck, car – tank, container, silo truck) designed for the transport of food.	
SHELF LIFE	24 months	

VITAL WHEAT GLUTEN

Vegetable protein complex



Application and benefits

The range of applications for wheat gluten has grown significantly and it is now used in milling and flour fortification, bread and pastry, breadings and batters, breakfast cereals, pasta and noodles and meat.

Baked goods

- Improves the strength of baking flours
- excellent strengthener in bread with whole grains or high fiber
- increases baking tolerance, mixing time tolerances, and fermentation tolerance
- extends shelf life by reducing moisture loss
- improved taste, colour, and nutritional value of end products
- increase absorption and loaf volume
- improves freeze/thaw stability in frozen dough's
- serves as functional protein in low carbohydrate formulations

Pastas

- improves manufacturing, cooking, and eating qualities
- increases resistance to breakage and tolerance to overcooking
- reduces cooking losses
- improves structural integrity in retorted products
- reduces the need for egg albumen
- restores functional protein in formulations that use added fiber or alternate sources of protein
- Breakfast cereals
- upgrades nutritional value
- increases structural strength, reduces breakage

Batters and breadings

- improves adhesion of batters in fried foods
- can replace egg albumen
- provides barrier properties to moisture loss
- contributes to surface crispness
- controls oil pickup in fried coating

Processed meat, fish and poultry

- stimulates the texture of meat, fish and poultry muscle
- binds with and restructures muscle proteins
- provides optimum emulsion stabilization
- provides low flavour and high functionality

Cheese analogs

- adds protein
- provides low flavour and high functionality

WHEAT DEXTRIN

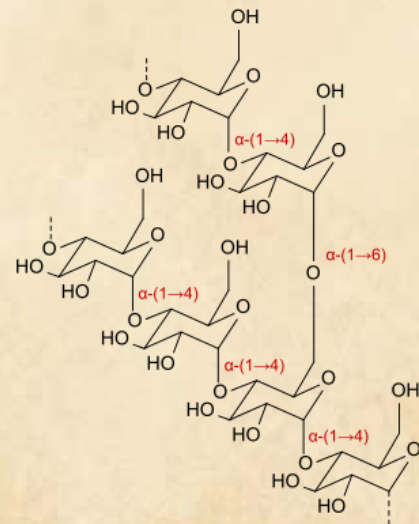
Modified wheat starch



Wheat starch is chemically processed to make wheat dextrin. Dextrins are mixtures of polymers of D-glucose units linked by α -(1→4) or α -(1→6) glycosidic bonds.

Wheat starch is a byproduct from extracting gluten from wheat. It is sprayed with acid while being agitated and then suspended in water by the acids or enzymes. After maturing, it is dried in a roaster where it is continually heated and stirred. The converted dextrin is then taken from the roaster and cooled. It is humidified before packing to keep the dextrin from getting lumpy or foaming.

Dextrins are white, yellow, or brown powders that are partially or fully water-soluble, yielding optically active solutions of low viscosity. Most of them can be detected with iodine solution, giving a red coloration; one distinguishes erythrodextrin (dextrin that colour red) and achrodextrin (giving no colour).



PRODUCT SPECIFICATION

YELLOW AND WHITE DEXTRIN

CHARACTERISTICS	PARAMETARS	REFERENCE VALUES
SENSORY	The smell and taste Color Appearance Storage pests alive or dead Metal shavings	characteristic yellow -white powdery Not allowed to attend Not allowed to attend
PHYSICO-CHEMICAL	Moisture content Acidity Solubility – yelow/white DE value The presence of synthetic dyes	max 10% max 80° /40° 92-100%/30 - 55 % max 10 Not allowed to attend
MICROBIOLOGICAL	The total number of microorg. Enterobacteriaceae Echerichia coli Molds and yeasts Salmonella	max 10000 cfu/g max=100 cfu/g Negative -/g max=1000 cfu/g Negative cfu/25g
THE PRESENCE OF METALS AND METALLOIDS	Lead (Pb) Mercury (Hg) Arsenic (As)	max 2 mg/kg max 0,03 mg/kg max 0,5 mg/kg
GEOGRAPHICAL ORIGIN OF RAW MATERIALS	Republic Of Serbia	
ALLERGEN INFO	May contain traces of gluten.	
DECLARATION OF GMOs	The product is not genetically modified and should not contain GMOs.	
PACKAGING	- 25 kg in white kraft bags / 750 - 1000kg per pallet, marked and wrapped with stretch foil - 1000 kg in PP bags - Bulk in silo truck	
WAY OF DISTRIBUTION (TRANSPORT)	Hygienic and technically correct vehicles (truck, car – tank, container, silo) designed for the transport of food.	
SHELF LIFE	24 months	

WHEAT DEXTRIN

Modified wheat starch

Application and benefits

It is used globally and has many commercial uses, along with various health benefits.

Wheat dextrin is a water-soluble fibre that can help reduce cholesterol levels, help boost immune function, improve mineral absorption and help you reduce excess body fat.

Wheat dextrin is widely used in the food industry as a food thickener in packaged soups, sauces, sweets, baby food and as a replacement for fats in reduced calorie foods. Wheat dextrin is also a good source of dietary fiber. Wheat dextrin is one of various dextrans used in the textile industry for printing cotton fabrics. It is also used as an adhesive for porous substances, in the paste on envelopes, labeling adhesives, postage stamps, gummed tape and a variety of other adhesive uses.



Fidelinka

FIDELINKA SKROB D.O.O. SUBOTICA

Čantavirski put 1
24000 Subotica, Serbia
Phone: + 381 24 666 041
E-mail: office@fidelinkaskrob.rs
www.fidelinkaskrob.rs

