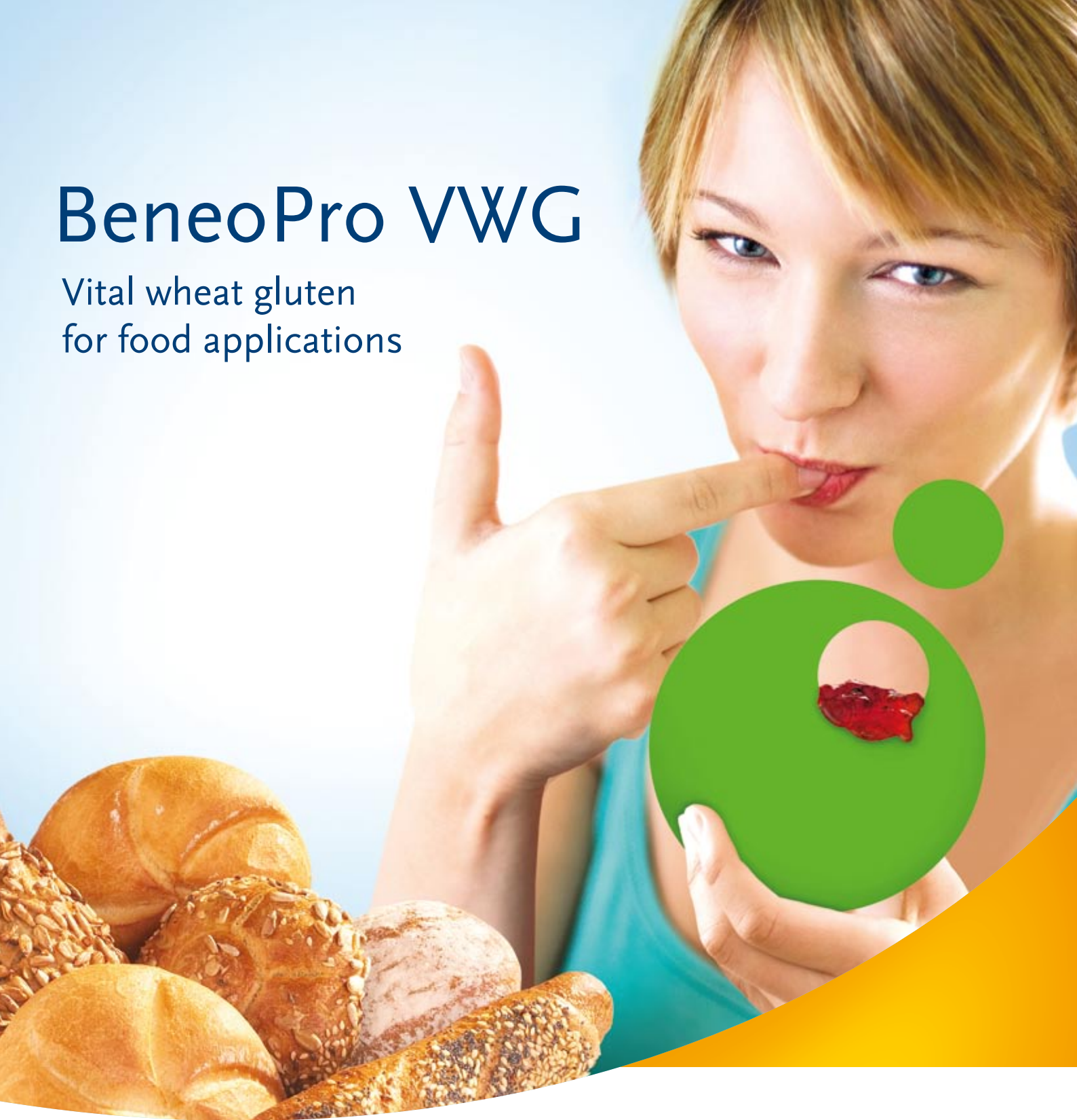


BeneoPro VWG

Vital wheat gluten
for food applications



beneo
connecting nutrition and health

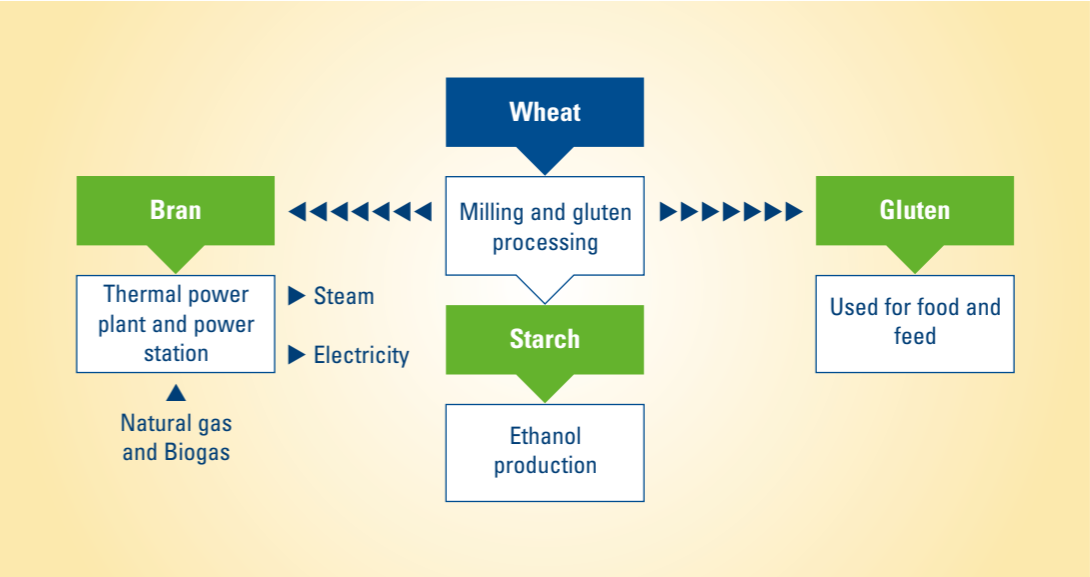
BeneoPro VWG

Vital wheat gluten

The first practical applications of wheat gluten can be traced back to ancient China, where it was used as a vegetarian alternative to meat. Since this time, 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.

Vital wheat gluten occurs naturally in all wheat and wheat-derived flours. It is obtained by washing the starch out of the wheat flour dough. The elastic mass of gluten is dried and milled to a yellowish powder which is used commercially as vital wheat gluten.

BENEOPro VWG is a new source of vital wheat gluten and a co-product of Crop Energies' bioethanol production facility in Wanze. Opened in 2008, Biowanze is Europe's most innovative bioethanol plant. It uses renewable raw materials, which means a reduction in CO₂ emissions of up to 70 %. Bioethanol is produced through the processing of wheat and sugar beet.



Technical benefits

in food applications

Milling and Flour Fortification

Quality control – one of the primary uses of BENEOPro VWG is to adjust flour protein levels to guarantee consistent quality, whatever the original flour mix. Wheat gluten is a natural ingredient, which can be used to meet desired quality requirements.



Bread and Pastry

Viscoelastic properties - the viscoelastic properties of BENEOPro VWG improve the volume, stability and texture of baked goods, especially in multi-grain, high fibre and other speciality breads. As the moisture evaporates from the heat of the oven during baking, the stretched flour proteins in the bread or pastry become rigid, setting the product in a uniform, highly-controlled structure.

Improved machinability – the addition of wheat gluten to pastry facilitates its ability to be rolled out into thin processable sheets.

Improved yield, softness and shelf life – wheat gluten's high water absorption capacity means it improves the yield, softness and shelf life of baked goods.

Improved elasticity, strength and handling – to improve the dough strength, mixing tolerance and handling properties, a higher gluten content is recommended, especially in frozen but also in non-frozen dough.



Breadings and Batters

Improved adhesion and shelf life – BENEOPro VWG improves the adhesion of batters to fried foods and in addition, acts as a barrier to moisture migration.

Improved crispiness – due to the structure of wheat gluten, extra crispness is provided to the end product.



Breakfast Cereals

Fortification – BENEOPro VWG is often used as a protein source in the fortification of breakfast cereals.

Improved strength – flaked cereals are strengthened when wheat gluten is added, as it provides enhancement to the flakes' structure and reduces the risk of breakage.



Pasta and Noodles

Quality control – by using BENEOPro VWG, high quality pasta can be consistently produced, smoothing out the fluctuations in quality of the original durum wheat.

Improved strength and structure – the addition of wheat gluten strengthens the pasta dough, allowing it to be extruded into strong, yet thin sheets or other forms, as required. It also improves the pasta's resistance to overcooking.

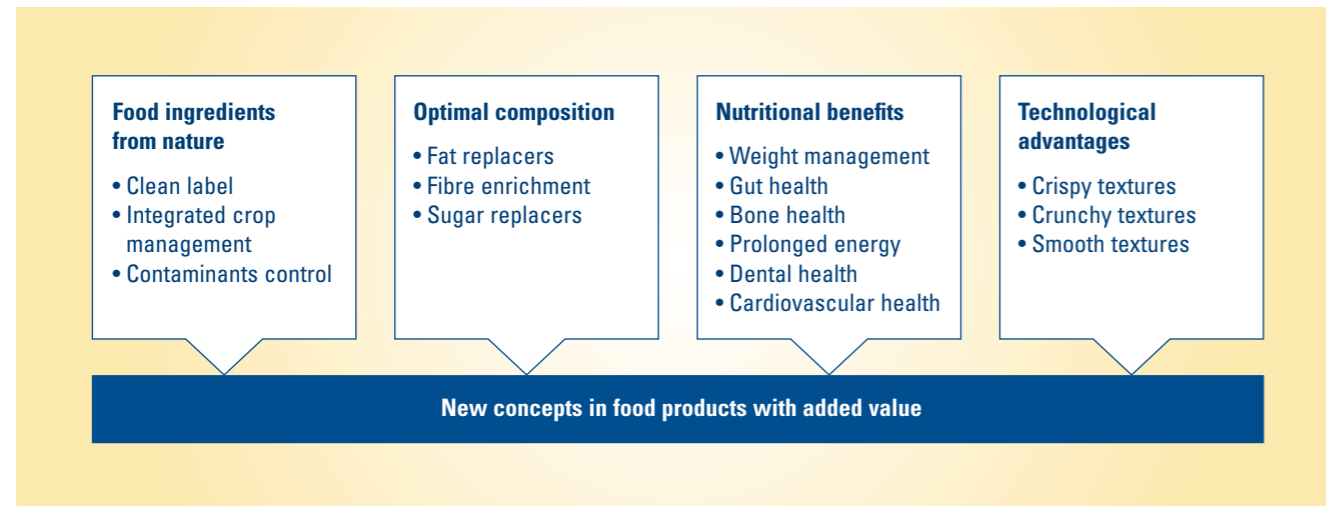
Meat

Superior texture – BENEOPro VWG is the ideal alternative to traditional vegetable proteins. The extruded gluten provides a texture that is very similar to meat and can be used in products as a replacement for red meat, poultry and seafood.

Highly versatile – wheat gluten can be used as an effective aid in binding meat chunks together to form restructured steaks or chops. In addition, it can be used as a protein binder in sausages and other meat emulsified products, all whilst providing optimal emulsion stability.



BENEO is part of Südzucker, Europe's largest sugar producer with 17,500 employees and EUR 5.7 billion annual revenues. BENEO offers a range of ingredients from natural sources that helps to develop food & beverage products that will satisfy the consumer's needs. The BENEO product portfolio consists of functional ingredients with nutritional and technical advantages, derived from chicory roots, beet sugar, rice and wheat. BENEO is the ideal partner to help improve the health, taste, texture and nutritional value of a product.



Through a unique chain of expertise, BENEO actively supports its industry partners in the development of more balanced and healthy food products. We position ourselves as a full-scope partner, offering you far more than just modern food ingredients. Our service ranges from consumer research, idea conception and patent support to official approvals and marketing. We support you in the product development, adjustment and optimisation of manufacturing processes and implementation of the necessary technologies. Maybe this is the reason why so many of our customers are market leaders.

So what can we do for you?



BENE0-Orafti

Aandorenstraat 1

B-3300 Tienen

Belgium

Phone +32 (0) 16 801 301

Fax +32 (0) 16 801 308

info@BENE0.com

www.BENE0.com

