

# NUTRITIONAL ENRICHMENT



• PORK  
GLOBOOST 90P



QBoost

Natural Ingredients. Smart Solutions.

**sonac**

**DARLING**  
INGREDIENTS

## QBOOST PORK GLOBOOST 90P IMPROVES TASTE AND PROTEIN LEVEL

At the production of cooked hams, shoulders and comminuted meat products, taste and smell are important product characteristics. Besides this, also the protein content is important. Due to a growing awareness of consumers, 'clean labelling' and 'less E-numbers' are more required in meat products. QBoost Pork Globoost 90P fulfils these demands.

### Benefits compared to other hydrolyzed proteins

Pork Globoost 90P is a meat flavour with unique properties, compared to other protein sources such as hydrolyzed collagen or soy protein isolate. Pork Globoost 90P is a mild meat flavor with 90% of animal protein, similar to meat. It is perfectly soluble and has a very neutral colour. It is GMO and allergen free. It has an amino acid profile which is similar to meat and high in essential amino acids.

## HOW TO USE QBOOST PORK GLOBOOST 90P

At the production of cooked hams and shoulders Pork Globoost 90P can be used by adding it to the brine or to the meat during tumbling, as it dissolves very well. Pork Globoost 90P can also be added during the dough preparation, at the production of comminuted meat products.

### Why does Pork Globoost 90P score so well

At the production of cooked ham, shoulders and comminuted meat products, the application of Pork Globoost 90P offers benefits because of the excellent properties, like high solubility, high protein content, good amino acid profile and flavour.

- flavor
  - mild meat flavor
- high protein content
  - containing 90% of meat protein
- high solubility
  - important requisite for other properties and good distribution in the products



- neutral colour
  - important characteristic for brines and meat products (no visible protein stripes)
- good amino acid profile
  - amino acid profile is similar to meat, high amount of essential amino acids
- improved yield
  - improves the cooking and slicing yield of cooked ham

### Amino acid profile

In below table the profile of the essential amino acids of lean pork meat is compared to that from Pork Globoost 90P, hydrolyzed pork collagen and soy protein. It is clear that in comparison with pork meat and the other ingredients, Pork Globoost 90P is richer in most of the essential amino acids. Moreover, the amino acid profile is also most similar to the amino acid profile of meat.

Amino acid protein <sup>2</sup> (g/100 g protein)	Lean pork meat <sup>2</sup>	QBoost Pork Globoost 90P	Pork Hydrolyzed Collagen <sup>2</sup>	Soy
Arginine <sup>1</sup>	7.0	2.9	7.2	8.4
Histidine <sup>1</sup>	4.5	9.7	1.4	2.5
Isoleucine	5.8	-	1.7	5.1
Leucine	8.7	13.0	2.9	7.7
Lysine	10.0	9.8	3.6	6.9
Methionine	3.3	3.6	0.6	1.6
Phenylalanine	4.5	6.6	2.3	5.0
Threonine	5.7	3.9	1.8	4.3
Tryptophane	1.4	1.0	0.0	1.3
Valine	6.5	8.3	2.3	5.3
Hydroxyproline	-	-	12.0	n.a.

<sup>1</sup> only essential for young children <sup>2</sup> source: Food Composition and Nutrition Tables (Souci et al., 1994)



## RESEARCH FINDINGS

Sensoric value of colour and taste of cooked ham with Pork Globoost 90P.



### Factor: taste/smell and colour

- recommended dosage results in increase in perception of taste and smell
- neutral colour when recommended concentrations are applied

### Which concentration delivers optimal result

At the preparation of cooked hams, shoulders and comminuted meat products, optimal results of the application of Pork Globoost 90P protein are dependent on the production process. In general, the recommended maximal concentration in these meat products is as follows:

- Pork Globoost 90P > maximal 2 - 4 % on product basis

## WHERE TO USE QBOOST PORK GLOBUUST 90P

Globoost 90P can be used in all kind of meat products that need flavour in combination with protein enrichment. It can be applied both in comminuted meat products (e.g. Mortadella, Frankfurter) and in whole muscle products such as shoulders, hams and loins.

## Examples of recipes

### Product: Wiener sausage

Component <sup>1</sup>	Standard recipe (%)	Recipe with 2% QBoost Pork Globoost 90P and 1% plasma powder (%)
Pork meat	35.0	35.0
Pork fat	25.0	25.0
Pork pigskin emulsion	10-12%	10-12%
Ice	20.0	20.0
Salt (+ nitrite)	1.8	1.8
Phosphate	0.3	0.3
Na-ascorbate	0.1	0.1
Spices	0.15	0.1
Pork Globoost 90P	-	2.0
Plasma powder	-	1.0

<sup>1</sup> Additives are calculated on top

The recipe with Pork Globoost 90P and plasma powder results in a product which has a better taste and smell and is much more firm/sliceable.

### Product: Cooked ham (typical composition of brine with Pork Globoost 90P, based on 35% injection)

76.7%	Water
7.7%	Salt (with 0.6% nitrite)
1.9%	Dextrose
1.9%	Phosphate
0.19%	Sodium ascorbate
7.7%	Pork Globoost 90P
3.9%	Plasma powder (pork)

This brine composition and percentage of brine injection will result in 2% salt and 2% Pork Globoost 90P in the final product.

If another percentage of brine injection is preferred, the indicated percentages of ingredients are multiplied by 35% or the preferred percentage. Since the salt content of the brine should not be higher than 8%, lacking salt can be added to the meat during tumbling.

## PRODUCT INFORMATION ON QBOOST PORK GLOBOOST 90P

	QBoost Pork Globoost 90P
Water (%)	< 4
Protein (%)	> 90
Salts (%)	< 8
pH	5-6

### Legislation

Pork Globoost 90P hydrolyzed protein is similar to meat protein. At application, the status and labelling of Pork Globoost 90P hydrolyzed protein are provided by the national legislation of each country. Predominantly it is regarded as a so-called hydrolyzed animal protein and can be labelled as a flavour.

### Haripro and Sonac

Haripro is an Italian producer of natural ingredients from animal sources for the food industry. Haripro delivers high quality proteins which are produced from pork or beef by-products using modern technologies. Sonac is distributing Haripro products outside Italy.



### THE SUCCESS FACTORS OF QBOOST PORK GLOBOOST 90P

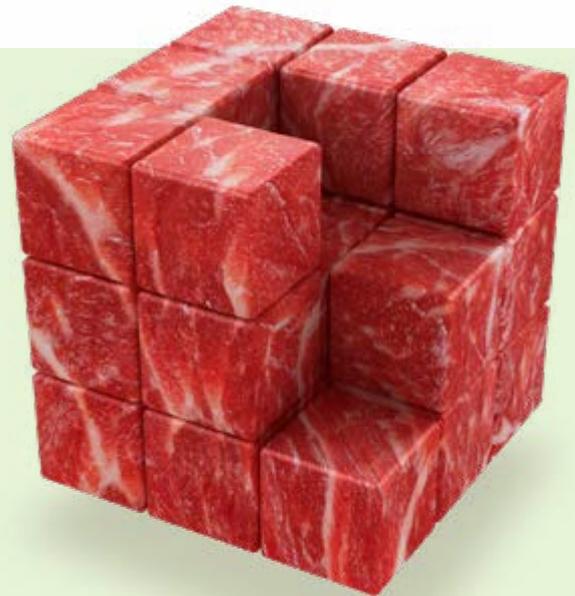
- good flavor
- high protein content (90%)
- similar to meat protein (amino acid profile)
- high in essential amino acids
- high solubility

## YOUR QUEST FOR QUALITY RESOLVED

Our product portfolio is continuously expanding with a number of innovations. With products from several origins and different species, we offer a complete portfolio. Qualitative characteristics of our natural proteins fit seamless in the global trend of clean label products. They are rooted in a long history of usage of animal proteins for quality and yield improvement of processed meat products and provide multiple benefits for you.

### Let's solve your meat puzzle.

Sonac is a leading manufacturer of reliable ingredients of animal origin. With an active R&D program, reliable processes and sustainable end products Sonac continuously adjusts to market needs. A good geographical spread of locations and a broad portfolio of fats, proteins, minerals and specialties make Sonac a trusted partner for many international producers in food, pet food, feed and fertilizers, worldwide. Sonac is part of Darling Ingredients.



For more information about this specialty product please contact us:

PO Box 9 NL 5690 AA Son +31 (0)499 364 820 info@sonac.biz

sonac.biz

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