

ProMeat Adagio™ F

Gradual Acidification of Rookworst

GALACTIC



Rookworst is a sour fine-emulsion smoked sausage mainly found in the Netherlands, Belgium and Germany. The problem that may occur during production is a too quick acidification, which leads to the coagulation of proteins.

This kind of sausage is therefore industrially produced with coated citric acid to ensure good acidification and guarantee a good shelf life. However, coated organic acids give an unwanted off-taste in final products.

Galactic developed a natural and non-coated solution called **ProMeat Adagio™ F**, which gradually lowers the pH over time. A small amount of **ProMeat Adagio™ F** ensures equivalent results when compared to the traditional method, but without compromising on the final product's quality.

Advantages

- 100% natural ingredient
- Gradual and stable acidification
- No coating (palm oil-free)
- No carrier
- Anti-microbial effect (longer shelf life)
- Improved taste (soft acid)
- Sodium-free ingredient
- Cost-effectiveness

Galactic carried out trials with the following recipe.

Ingredients	Control (%)	Trial (%)
Lean pork meat (SII)	45.02	45.14
Ice	4.70	4.70
Pork neck (SV)	45.53	45.66
Pork backfat (SVIII)	1.00	1.00
Curing salt	2.00	2.00
Phosphates	0.30	0.30
Spices	0.50	0.50
Smoke flavour	0.20	0.20
Ascorbic acid	0.10	0.10
Carmines	0.10	0.10
Paprika extract	0.05	0.05
Coated citric acid	0.50	
ProMeat Adagio™ F		0.25
Total	100.00	100.00

Results

The rookworst containing **ProMeat Adagio™ F** attained similar results when compared to that containing coated citric acid. **ProMeat Adagio™ F** offers therefore a natural way to produce rookworst without using acids coated with oil. **ProMeat Adagio™ F** combines high processing performance with a great taste.

Process

- Store all raw meats in fridge between 2 and 4° C.
- Put the lean pork meat in a cutter and add the phosphates and half the curing salt - 2 minutes at speed 1.
- Add the ice - 2 minutes at speed 1.
- Add the pork backfat and the pork neck with the rest of the curing salt and the spices - 2 minutes at speed 1.
- Directly afterwards, add the ascorbic acid, the smoke flavour and **ProMeat Adagio™ F** or the coated citric acid - 2 minutes at speed 2.
- Increase the cutter's speed - 2 minutes at speed 2.
- Stuff the mixture in a collagen casing (38 mm diameter).
- Put the rookworst in a vacuum pack.
- Cook in a water bath for 30 minutes at 85° C (72° C core temperature).
- Cool in a water and ice bath.

Parameters	Impact
PH	Same evolution for coated citric acid as for ProMeat Adagio™ F during the process. After the process, the coated citric acid had a pH value of 5.1 after 8 weeks compared to 5.3 for the ProMeat Adagio™ F .
Water activity	Not affected by the use of ProMeat Adagio™ F .
Microbiology	After 18 weeks, the results showed that ProMeat Adagio™ F and coated citric acid were both below 2 log.
Spreadability	Not affected by the use of ProMeat Adagio™ F .
Texture	Not affected by the use of ProMeat Adagio™ F .
Cooking loss	Not affected by the use of ProMeat Adagio™ F .
Sensory evaluation	The tests showed that no off-flavour (as was the case with coated citric acid) was detected in the rookworst containing ProMeat Adagio™ F .

Contact us for:

- Samples
- Technical assistance
- Trials

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References

The tests were run by a team of engineers specialised in the food sector. They were conducted in Galactic's laboratories (Galactic Innovation Campus) located in Brussels. Our market development team remains at your disposal for further information, trials with your formulations, etc.

Since 1994 Galactic has become a natural solution provider and one of the world leaders in biotechnology serving the food, feed, personal & health care, and industrial markets. Based on its valuable experience in the fermentation of lactic acid and in the production of its derivatives, Galactic continuously develops sustainable, innovative and health-friendly solutions in the field of food safety, nutrition and green chemistry.

