

## Functional protein

Functional protein is a type of protein derived from pigskin or cowhide, and produced using advanced processing technology. When mixed with hot water, the collagen expands and then re-forms into a three-dimensional network structure upon cooling. This unique structure enables it to bind and retain moisture, thereby improving the yield, taste, texture, and sliceability of meat products when added.

**Foodpro™ B** is a functional protein derived from bovine collagen, with high protein and low fat content. It has a maximum water binding capacity of 1:15-25, fine-grained texture, and excellent cold water dispersibility. Its unique functionality enables strong cold-curing binding properties. The cow hides used for production are inspected and declared fit for human consumption.

# Foodpro™ B

Foodmate



(Scan the QR code on WhatsApp)

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# Foodpro™ B

Functional Protein For Meat

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What is **Functional Protein** ?  
—— **Foodpro™ B**





# Foodpro™ B functional protein

**Foodpro™ B** is a 100% cowhide beef protein, mainly composed of natural collagen, with excellent dispersibility in normal and cold water. It enhances product yield, texture, sliceability, taste, and water retention. And it's a clean label ingredient that can be directly added to any product formulation.

- Advantage:**
- \* **Improve texture and elasticity**
  - \* **Increase the cost of use**
  - \* **Improve taste**
  - \* **Keep hydrated**
  - \* **Increase production rate**
  - \* **Improve sliceability**
  - \* **Improve taste**
  - \* **Easy to use**

Foodpro™ B 's three-dimensional collagen structure unfolds upon mixing with water and heat treatment, then refolds upon cooling, binding and tightening water in meat products. This excellent characteristic greatly enhanes the elasticity and sliceability of the product. And Foodpro™ B has high protein content, moderate flavor, and is suitable for various meat products.



## Gel and emulsifying properties of Foodpro™ B

**Foodpro™ B** excels in water retention and is ideal for high-pressure injection and emulsified meat products. It can be used alone or with other water-retaining products, especially when combined with TG enzyme.



	Foodpro™ B	Fat/Oil	T>80℃	Salt/Phosphate
oil	1	10\15	10\15	+
Fat	1	10\15	10\15	+
Hot oil	1	10\15	10\15	+
Hot fat	1	10\15	10\15	+

## Combined effect with other systems

When **Foodpro™ B** is used in combination with other systems, it will generally bring about synergistic effects. Below the table, + means normal, ++ means good, +++ means very good,-means no synergistic effect, /according to product type.

Foodpro™ B	TG	ISP	Carrageenan	Alginate	Fiber	Starch
Brine	+++	+++	+++	-	/	+++
Hold Water	+++	++	+++	+++	++	++
Solubility	+++	++	++	+	/	+
High temperature emulsifying power	+++	+++	+	++	+	++
Low temperature emulsifying power	+++	++	-	+++	-	-
Thermal stability	+++	+	-	+++	-	+
Low temperature gelation	+++	++	+++	+++	++	++



## Application example of Emulsified Sausage



## Mortadella (frankfurter type)

Frankfurt sausage is a fine emulsified product that has been smoked and cooked. Frankfurt sausages are usually eaten hot.

In this formulation, Foodpro™ B is used for dry addition to provide firmness, structure and thermal stability. Due to the thermal stability, the final product maintains a firm texture and bite feel.

Raw Materials	Rate
4# pork meat	22.00 %
MDM-Chicken	25.00 %
Foodpro™ B fat 1:10:10 emulsion(prefabricated)	18.00 %
Foodphos PC300	0.30 %
Table salt (0.6% sodium nitrite)	1.80 %
Spices	0.60 %
Ascorbic acid	0.05 %
Potato starch	4.00 %
Skimmed milk powder	2.00 %
Foodpro™ B	2.15 %
Ice /water	24.10 %
Total	100.00 %



## 20% injection cooked ham

The injection of a large piece of whole ham contains 20% saline injection of Foodpro™ B. Foodpro™ B provides a firm structure to improve sliceability.

Foodpro™ B can reduce cooking losses.

Raw	Rate
3# pork meat	83.33%
Ice/water	13.32%
Foodphos PJ300	0.30%
Table salt (0.6% sodium nitrite)	1.5%
Sodium Ascorbate	0.05%
Glucose	1.00%
Foodpro™ B	0.50%
Total	100%