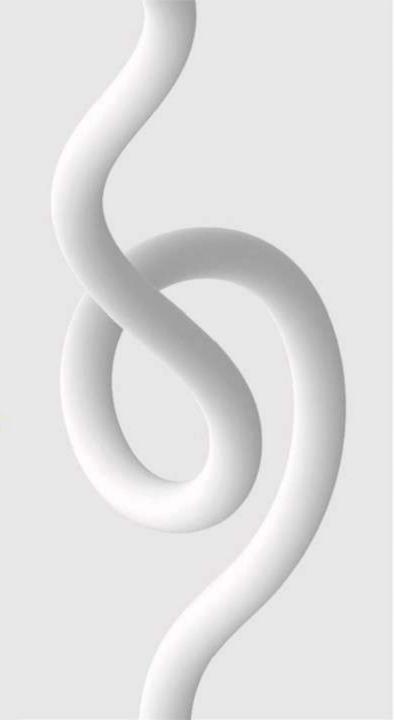


2025

CREATIVE SOLUTIONS
AND STABLE TECHNOLOGIES



## OJSC "Ruzsky Meat processing plant"

### **Production of Dietary Fiber and Bovine Collagen Protein**

Currently, the production capacity for animal protein lines is 5,000 tons per year, while fiber production lines have a capacity of 6,500 tons per year.

Only domestically sourced raw materials are used in the production of animal proteins and plant-based dietary fibers. The facility is certified for exports to countries of the Customs Union, the People's Republic of China, Mexico, and several other international markets.



The protein is certified and approved for use in Halal products.



### **BOVINE ANIMAL PROTEIN**

Bovine connective tissue proteins under the "RUZAPRO" trademark are produced from purified collagen tissues using a unique, modern technology that meets global quality standards. Animal proteins are highly functional raw ingredients.

#### Their use in meat processing enables:

- · Partial replacement of meat raw materials
- · Improved cost-efficiency
- · Enhanced product quality
- · Denser, more uniform texture
- · Prevention of broth and fat separation
- Reduced losses during thermal processing and storage
- Increased protein content in meat products



Animal proteins are used in the production of all types of meat products: minced and whole-muscle items, sausages, hams, delicacies, pâtés, semi-finished products, headcheese, aspics, canned meats, as well as in the production of protein granules.

# WHAT MAKES "RUZAPRO" BOVINE COLLAGEN PROTEIN DIFFERENT?

"RUZAPRO" animal protein is a natural bovine connective tissue protein derived from purified collagen tissues using a proprietary technology. It is produced in full compliance with international quality standards.

Our key advantage lies in the low-temperature drying process, which preserves the maximum amount of intact collagen and, as a result, enhances the thermal stability of the protein. The resulting animal protein is a highly functional food-grade ingredient recommended for use in the production of various types of sausages, delicatessen meats, canned goods, and semi-finished products.

"RUZAPRO" enables enrichment of finished products with protein (over 90% by Kjeldahl method using a 5.71 factor for collagen proteins or over 100% using a 6.25 factor), reduces the risk of broth and fat separation, improves binding and firmness of meat emulsions, and helps maintain shape in dry-cured and air-dried products.



## **BEEF COLLAGEN PROTEIN «RUZAPRO»**

RUZAPRO 100	RUZAPRO 200
100	100-400
90	90
2	1
10	8
	100 90 2



## "RUZAPRO SUPER"

INNOVATIVE ANIMAL PROTEIN

Compared to the first-generation products, we have achieved significantly enhanced functionality: Improved water-binding capacity and increased adhesive properties when added to emulsion-based products.

The addition of "Ruzapro Super" thickens the meat batter, strengthens the protein matrix, binds low-melting fats, and ensures their better distribution throughout the product. When used in products intended for reheating, "Ruzapro Super" delivers a dual effect:

- The bovine collagen, treated with our proprietary biochemical process, features a high denaturation temperature, helping maintain product bite and texture when hot.
- Additionally, the presence of denatured ballast proteins intensifies the meaty, protein-rich flavor of the final product.

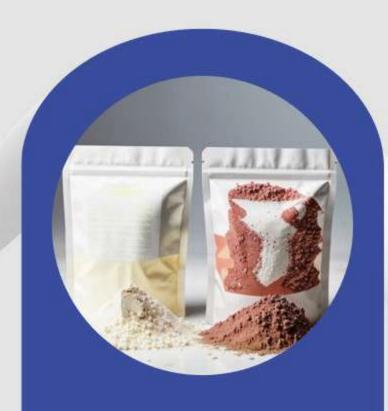


The addition of "Ruzapro Super" to the meat batter for drycured and air-dried products results in active water binding, prevents the "case hardening" effect, ensures more uniform moisture distribution throughout the product, and contributes to an overall acceleration of the curing process.



# BOVINE PROTEIN VS PORCINE PROTEIN

	Bovine Collagen Protein	Porcine Collagen Protein
Product distribution	Even distribution in product matrix	Slightly less uniform distribution
Structure formation	Forms fibrous, spatial structure ("wave" effect)	Less structured texture
Thermal stability	High — maintains density during cooking and reheating	Faster denaturation during heat treatment
Performance in reheated products	Excellent — no swelling or separation even at higher dosages	Less suitable for reheated formats
Effect on cold meat batter	Moderate improvement	Strong improvement (rheology and handling)
Impact on juiciness	Moderate, stable	Higher juiciness (due to thermal denaturation)





## RECOMMENDATIONS FOR USE



Water-binding capacity: 1:10 (up to 1:20), depending on the type of product being manufactured. BOVINE CONNECTIVE TISSUE PROTEIN CAN BE USED IN BOTH DRY FORM AND AS GEL OR PROTEIN GRANULES

#### Dosage depends on:

- The type of final product
- · The quality of raw materials used
- The formulation composition
- · The quality requirements for the finished product

# ADVANTAGES OF USING ANIMAL CONNECTIVE TISSUE PROTEINS

- Improve rheological properties and consistency of meat batter
- Provide stabilization of meat systems
- Exhibit strong emulsifying, water-binding, and fat-binding properties, functionally similar to muscle proteins
- Increase product yield while reducing the consumption of meat raw materials
- Enhance the nutritional and biological value of meat products
- Reduce production costs and increase product yield by 30-50%
- Minimize losses during thermal processing
- Improve texture, juiciness, and overall product appearance



# DIETARY FIBERS "RUZACEL"



Dietary fibers are recommended for use in the production of all types of food products.

#### Advantages of plant-based dietary fibers:

- Create a firm, dense texture
- Bind and retain moisture during vacuum packaging
- Exhibit high fat-binding capacity
- ✓ Do not impart off-flavors
- Improve the visual appeal of finished products
- Reduce losses during frozen storage

We recommend using dietary fibers in the production of boiled, semi-smoked, boiled-smoked, and dry-cured sausages; frankfurters, small sausages, and liver sausages; whole-muscle meat products; restructured hams; chopped semi-finished products; and canned meat products. They are also suitable for dairy products such as yogurt, cottage cheese, and other curd-based products; flour-based confectionery and bakery goods; as well as fish products.







ISO 22000



СХЕМА СЕРТИФИКАЦИИ СИСТЕМЫ МЕНЕДЖМЕНТА БЕЗОПАСНОСТИ ПИЩЕВЫХ ПРОДУКТОВ ВКЛЮЧАЕТ ТРЕБОВАНИЯ СТАНДАРТА ISO 22000:2018, ПРОИЗВОДСТВО ПИЩЕВЫХ ПРОДУКТОВ ISO TS 22002-1:2009 И ДОПОЛНИТЕЛЬНЫЕ ТРЕБОВАНИЯ FSSC 22000 V 5.1

CERTIFIED BY THE SPIRITUAL ADMINISTRATION OF MUSLIMS



### WHAT MAKES "KRIST" DIFFERENT FROM ITS COMPETITORS?

#### We offer:

Customized solutions tailored to specific tasks

Marketing support and involvement in R&D projects

Mobility of our technologists

Unique developments and exclusive formulations

Availability of all our specialists 24/7

Fast decision-making and minimal order processing time

Comprehensive technological support - from initial experiments to full-scale production launch





#### Наши контакты:





www.kristrus.ru

### Соцсети:



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