



Product Information

Texture Systems for Binding Meat

Textureze™ MT Series

Introduction

Textureze™ MT 200/230 binding system relies on the gelling properties of sodium alginate with calcium ions to form an excellent binder of meat. Standard meat processing machinery is used in all stages of the process. The system is designed for use with products that are stuffed into sausage casings or other forming devices.

Features and Benefits

- Permits accurate portion control – precise calibration
- Uses meat pieces not mince or comminute
- Can be used with a wide variety of meat types (e.g. beef, pork, lamb, poultry, etc).
- Uses low fat meat (<20% fat, S3 or better)
- Uses existing mixing and filling machinery
- Products are freeze-thaw stable
- Uses EU food approved additives and ingredients
- Cost effective system

Chemistry

The system uses the reaction between sodium alginate and calcium lactate to form a gel. This gel binds the meat pieces together to give a product that has excellent raw and cooked bind and confers a degree of freeze-thaw stability to the product.

Processing Equipment and Raw Materials

Mixing Equipment

Standard mixing equipment can be used to produce bound meat by this process.

Stuffing Equipment

Standard sausage stuffing machinery is ideal for this process.

Raw Materials

The three components of this system are:

- Uncooked meat
- Textureze MT 200
- Textureze MT 230

Raw Meat Quality. The system functions optimally when the meat contains as little fat as possible. Ideally, S3 quality meat (not greater than 20% fat) will produce excellent results. Meat pieces of varying size can be successfully bound using this technology.

Textureze MT 200 is a specially formulated alginate blend consisting of an intimate mixture of sodium alginate (gelling agent) and dextrose (dispersant). The dextrose helps the alginate to be dispersed easily, evenly and effectively. The process described below allows the alginate to hydrate completely.

Textureze MT 230 is an emulsifier-encapsulated form of calcium lactate that provides a source of calcium ions to react with the alginate and form a gel network. The emulsifier coating allows the powder to be evenly distributed throughout the meat mix while also delaying the gel reaction prior to stuffing, thereby allowing sufficient open time during processing.

Salt and Phosphate

Salt and phosphate are not required to generate good bind. The presence of these materials will in fact impair the binding properties of the alginate system. Salt can be added after the gel has formed. Seasonings which do not contain salt or phosphate may be added during processing.

Processing

Add water and mix until all water has been absorbed by the meat. Sprinkle Textureze MT 200 evenly on the meat pieces and mix until all the alginate has been dissolved and a homogeneous alginate film covers the meat pieces. Follow by sprinkling on Textureze MT 230 and mix until the powder has been evenly dispersed on the meat. The mixture may then be stuffed into sausage casings or filled into other containers or forms. Transfer the product to refrigerated storage and store overnight. This allows the bind to reach its maximum strength. Further processing (cooking-hot air/water bath, battering, breading, etc.) can be done as required after the product has aged.

Finished Products

Binding Quality. Provided that the recommended formulation and process steps are followed, excellent raw bind is achieved.

Portion Control. The raw or cooked product can be sliced easily, accurately and cleanly to allow excellent portion control.

Coatings. The sliced product can be coated, battered, breaded or marinated using standard techniques. No modification is required.

Cooking and Cooking Losses. The product can be cooked in the usual way (e.g. shallow or deep fat fried, oven bake, grill, microwave oven, barbecue etc.) without detriment to the product. Cooking losses are similar to those obtained with other processed meat products.

Advantages

This Textureze system does not rely on enzymes or critical processing methods (such as exact times and temperatures) and does not present any additional hazards. Additionally, the system does not require the extraction of protein with salt and/or phosphate to generate optimal binding properties.

Proprietary System

The Textureze MT 200/230 system is a patented ISP system (European Patent 0 345 886 B1). In purchasing these systems from ISP, purchasers are granted a nonexclusive license under EP 0 345 886-B1.

Labeling

The final product must be labeled in accordance with local regulations. In Europe, sodium alginate has the E-number E401 and encapsulated calcium lactate has E-numbers E327 and E471.



FMC BioPolymer

Know how. It works.

For additional information on our product please contact FMC BioPolymer.

- For technical inquiries on FMC products, please call 800-526-3649.
- For technical inquiries on ISP products, please call 888-472-5446.

The information contained in this document and the various products described are intended for use only by persons having technical skill and at their own discretion and risk after they have performed necessary technical investigations, tests and evaluations of the products and their uses. While the information herein is believed to be reliable, we do not guarantee its accuracy and a purchaser must make its own determination of a product's suitability for purchaser's use, for the protection of the environment, and for the health and safety of its employees and the purchasers of its products. Neither FMC nor its affiliates shall be responsible for the use of this information, or any product, method of apparatus described in this brochure. Nothing herein waives any of FMC's or its affiliates' conditions of sales, and WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, OR MERCHANTABILITY OR FITNESS OF ANY PRODUCT FOR A PARTICULAR USE OR PURPOSE. We also make no warranty against infringement of any patent be reason of purchaser's use of any information, product method or apparatus described in this document.

FMC, Kelvis, Kelcosol, Kelset, Keltone, Keltose, Manucol, Manugel, and Textureze are trademarks of FMC Corporation.
'Know how. It works.' is a service mark of FMC Corporation.

© 2008 FMC Corporation. All rights reserved.