

Mesozym

Encapsulated Transglutaminase

Mesozym is an enzyme obtained by fermentation of conventional micro-organisms.

Mesozym is an encapsulated transglutaminase and thus resistant to oxidation.

Mesozym is ideal for use in spice and condiment mixtures or functional compounds for the meat industry.

Benefits

- Enhances the bite of sausages.
- Reduces cutting losses in cooked ham.
- Improves binding of meat cuttings.
- Processing aid, and therefore exempt from declaration.




SternEnzym
The Enzyme Designer

Mesozym PT 100 C

Encapsulated transglutaminase

Description

MESOZYM PT 100 C is an encapsulated transglutaminase. The enzyme forms new, covalent bonds between the amino acids L-glutamine and L-lysine. The bonds come about within a protein or between different proteins. As a processing aid the enzyme binds meat and fish pieces together and enhances their structure and bite.

MESOZYM PT 100 C is a powder with a neutral odour. The enzyme preparation is readily soluble in water.

MESOZYM PT 100 C is supplied with an activity of 100 TGU/g.

MESOZYM PT 100 C is stable and effective at a pH of 6.0 and 45 °C. It achieves its strongest activity with adequate stability at 50 °C. After 10 minutes at 60 °C the enzyme becomes inactive and is therefore classified as a processing aid.

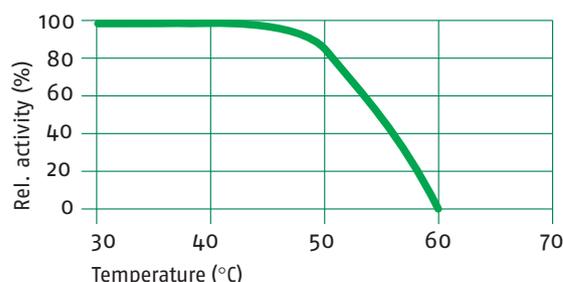
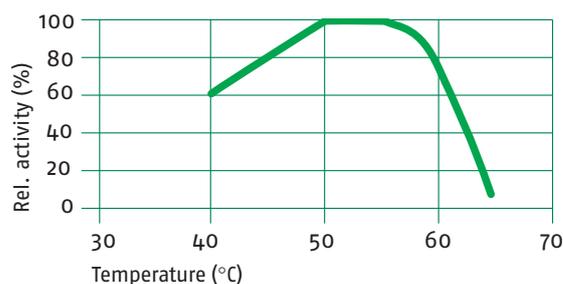
MESOZYM PT 100 C is encapsulated by a special method which gives it particularly high resistance to oxidation. Unlike conventional transglutaminases, **MESOZYM PT 100 C** does not have to be vacuum sealed or packed with oxygen binders to protect its stability. Because of this, **MESOZYM PT 100 C** is unrivalled by any other transglutaminase as a constituent of spice or condiment mixtures or in functional compounds.

Information on applications and usage levels

As a rule, 100–150g of **MESOZYM PT 100 C** per 100 kg of meat or fish are needed for the various applications. The reaction time is between a few minutes and several hours at 5–50 °C, depending on the application. The binding strength or bite achieved with the enzyme increases spectacularly through the further addition of 50–1,000 g of sodium caseinate per 100 kg of meat or fish.

At low concentrations, sodium chloride (table salt) loosens the structure of the protein and thus facilitates access of the transglutaminase to the target amino acids glutamine and lysine. Sodium chloride is not essential if sodium caseinate is used. Nevertheless, the addition of up to 3 kg of table salt per 100 kg of raw meat may improve binding in the case of re-formed meat. If sodium caseinate is not used we recommend adding sodium chloride to increase the efficacy of the transglutaminase. The optimum usage level depends very much on the process and the product and must be determined in individual trials.

Influence of temperature on activity and stability



Storage

If stored in the original pack in a cool, dry place the enzyme loses less than 15% of its activity over a period of 12 months. In spite of its improved resistance to oxidation the enzyme should be used up as soon as possible after the pack is opened.

Packaging

MESOZYM PT 100 C is supplied in 1kg aluminium bags in a 10kg outer.