



# Beerzym<sup>®</sup> P7

## Product Description

Beerzym P7 is a special liquid enzyme for proteolysis in mashes with adjuncts at temperatures up to 55 °C (131 °F). The enzyme is produced from a specially selected strain of *Bacillus subtilis*. The main activity of the enzyme is based on a proteinase (EC 3.4.24.4). In addition to this Beerzym P7 contains non-standardized quantities of valuable bacterial  $\alpha$ -amylase und  $\beta$ -glucanase.

Beerzym P7 is tested by specialized laboratories for purity and quality.

## Aim of Treatment

Liberation of proteins to achieve the desired protein modification in the course of mashing of malt or malt with adjuncts and to secure sufficient amino acid provision for an improved yeast nutrition.

## Product and Effect

As an endo-enzyme Beerzym P7 hydrolyzes peptide bonds under release of soluble peptides and assimilable amino acids.

## Dosage

Beerzym P7 is necessary in beer brewing when problems in the quality of the beer are to be expected, due to seasonal conditions affecting the malt used, or when part of the malt is replaced by adjunct (e.g. barley, rice, corn). The dosage of the enzyme depends on the quality of the raw material, the temperature and the reaction time.

Guide value: 150-250 ml/ton malt

350-700 ml/ton malt with adjunct

## Application

Dilute Beerzym P7 with cold water. The enzyme dilution is added directly after milling and mashing in of the malt and/or the adjunct into the mash tun or the mash copper. The enzyme is, in the pH-value of the mash, practically active throughout the entire mashing duration. Only in the subsequent wort boiling Beerzym P7 is completely inactivated.

## Storage

Beerzym P7 keeps its declared activity up to 36 months if stored optimally (0-10 °C/32-50 °F). Higher storage temperatures result in a shorter shelf life. Temperatures above 25 °C (77 °F) are to be avoided. Reseal opened packagings tightly and use up as soon as possible.

**Neutral bacterial  
proteinase for the  
proteolysis in  
brewing mashes  
with adjuncts**

- please turn over -

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Our technical product leaflets and the treatment recommendations they contain, are based on our current knowledge and experience and we make all reasonable efforts to ensure the accuracy of the information it provides. But since pre-treatment is mostly unknown to us and moreover imponderabilities with regard to the natural products to treat have to be taken into consideration, the advice given provides general information and serves for your consultation. Without a separate, written statement from our side on a defined matter or problem, the information provided should not be relied upon as legal advice or regarded as a substitute for legal advice and is without liability. The information provided is in accordance with the law in force of the Federal Republic of Germany and the EU. In addition, our general terms of business apply.  
Edition 11/05 – Beerzym\_P7.doc – printed on 01/02/2006

6 senses for your success

## General Characteristics

Enzyme characteristics: the activity range of the enzyme is between pH 5.0 and 10.0, the optimum is at pH 7.0 in the presence of calcium. The temperature range is between 25 °C (77°F) and 70 °C (158°F), the optimum is at 55 °C (131 °F).

The diagrammes 1 and 2 show the influence of temperature and pH-value on the enzyme activity of Beerzym P7.

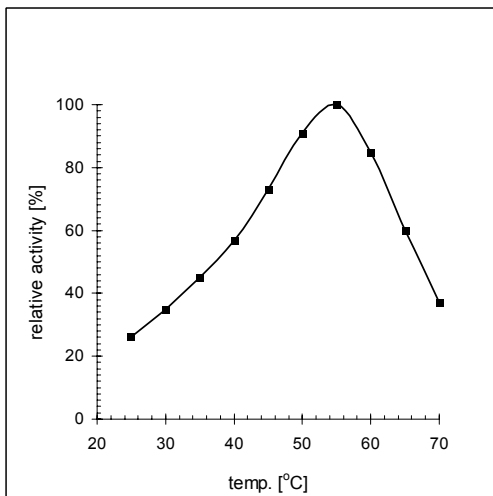


Fig 1: Influence of temperature on activity  
(2% casein solution; pH 7.0).

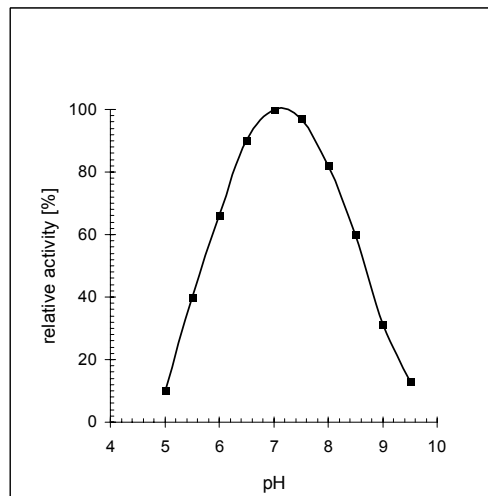


Fig 2: Influence of pH-value on activity  
(2% casein solution; 55 °C/131 °F).

### Please note:

When applying Beerzym P7 the food regulations of the individual countries currently in force have to be adhered to.