



# Enerzym® P7

Neutral protease for the degradation of proteins

## Product description

Enerzym® P7 is used when the malt is expected to produce inadequate beers due to the harvest quality or when part of the malt is replaced by raw, unmalted grains such as barley, rice or maize. In this way, the desired protein solution is achieved when mashing malt or raw fruit.

- Increasing the protein solution in the mashing process
- Improvement of yeast nutrition during alcoholic fermentation
- Avoidance of subsequent protein reactions

The use of Enerzym® P7 is not permitted according to § 9 para. 6 of the Provisional Beer Law (BierG) and thus within the framework of the German Purity Law. Further applicable national or international regulations are to be checked by the user.

## Dosage

Mash with unmalted grains, distilling mashes from cereals or potatoes: 75 mL/t of raw material.

Brewing process: 150 - 250 mL/t

Malt with insufficient protein solubility: 350 - 700 mL/t

The dosage can be adjusted depending on the type of raw materials, temperature and reaction time. Dilute with cold water and add to the water receiver before mashing. The enzyme remains effective during the entire mashing time and is only completely inactivated during the subsequent wort boiling.

The activity range of Enerzym® P7 is from pH 5.0 - 10.0, the optimum is pH 7.0 and a calcium content of at least 40 ppm. The temperature range is from 25 - 70 °C, the optimum is at 55 °C (see fig.1+2).

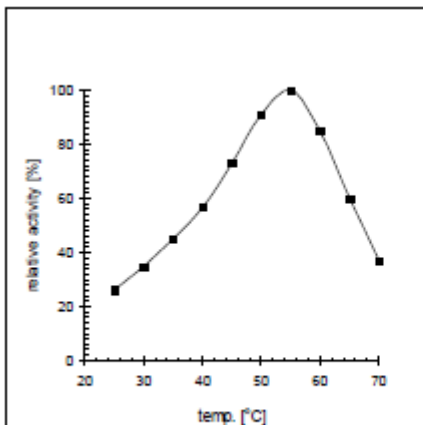


Fig 1: Influence of temperature on activity (2 % casein solution; pH 7.0).

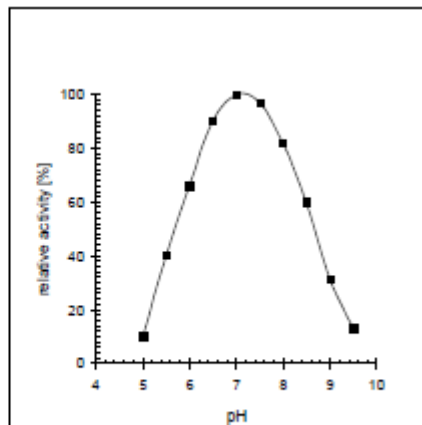


Fig 2: Influence of pH-value on activity (2 % casein solution; 55 °C).

## Storage

Optimal storage is at 0 - 10 °C. Higher storage temperatures lead to a shortened shelf life. Avoid temperatures above 25 °C. Tightly close opened containers and use up as soon as possible.