



EnerZyme Crystal

Special amylase for complete starch degradation in beverages and base substances

Product description

EnerZyme® Crystal is a highly concentrated amylase complex (EC.3.2.1.1.) from *Aspergillus niger* for the degradation of hydrolysed starch in distilling mashes, green beer, fruit juices and extracts.

Typical applications for EnerZyme® Crystal are:

- complete saccharification of liquefied starch, respectively its dextrans and oligomers
- prevention of starch-derived cloudiness in fruit beverages
- active starch hydrolysis
- comprehensive degradation of retrograded starch
- degradation of utilizable residual dextrans in dietetic beers

EnerZyme® Crystal is well effective within a pH-range of 2.8 - 6.0 and at temperatures up to 65 °C. Exact dosage recommendations depend on the aim of application.

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| Saccharification during the production of alcohol from starch raw materials: | 500 mL/ton applied raw material |
| Safe starch degradation in the production of apple juice concentrate: | 5 - 25 mL/1,000 L juice (12 °Bx) |
| Minimization of the residual extract in dietetic beers: | 2 - 5 mL/100 L green beer |

Enzyme characteristics: the activity range of EnerZyme® Crystal is between pH 2.5 and pH 6.5, the optimum is at pH 3.8 - 4.2. The temperature range of the enzyme is between 25 °C and 80 °C, the temperature optimum is at 65 °C. The diagrammes 1 and 2 show the influence of temperature and pH-value on the enzyme activity of EnerZyme® Crystal.

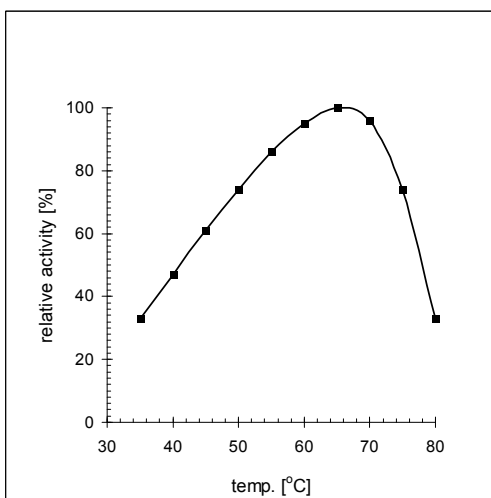


Fig 1: Influence of temperature on activity
(30 % maltodextrin DE18, pH 4.0)

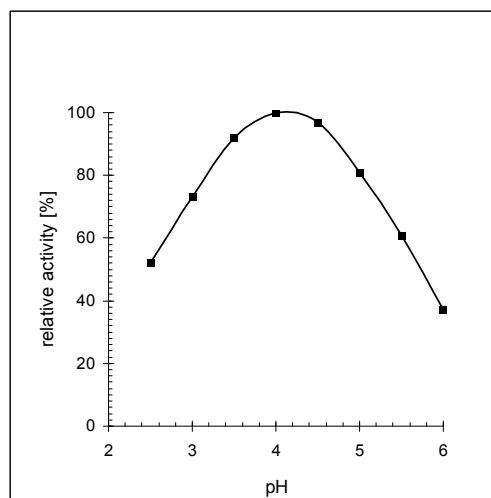


Fig 2: Influence of pH-value on activity
(30 % maltodextrin DE18, 60 °C).

Storage

Best storage conditions are 0 - 10 °C. Higher temperatures will cause shortage of product shelf life. Avoid temperature above 25 °C. Reseal open packages and use completely on short term.