

Special enzyme for rapid taste harmonization during green beer maturation

Product Description

Beerzym RAPID is a special enzyme for rapid taste harmonization during green beer maturation. The main enzyme activity is based on an alpha-acetolactate decarboxylase, in short ALDC (alpha-acetolactate decarboxylase: EC.4.1.1.5). The enzyme is produced by a genetically modified host strain of the species *Bacillus* (host), the ALDC coding gene was transferred by a specially selected donor strain of the species *Bacillus* (donor). Beerzym RAPID is proved for purity and quality by specialized laboratories.

Aim of Treatment

Rapid taste harmonization during green beer ripening by direct conversion of α -acetolactate into acetoin already at fermentation start and during fermentation.

Product and Effect

Beerzym RAPID is a liquid, slightly cloudy enzyme suspension. The enzyme is applied in brewing, if ripening times for taste harmonization of the green beer cannot be kept, or if the capacity of the cylindro-conical fermenters is insufficient. Beerzym RAPID is an alpha-acetolactate decarboxylase, active at low temperatures, which is added to the cold wort in the cylindro-conical fermenter and which already at fermentation onset and during fermentation directly converts α -acetolactate to acetoin and thus prevents the formation of diacetyl. Beerzym RAPID therefore leads to a quicker taste harmonization during green beer maturation and the entire maturation period is considerably shortened.

Dosage

The enzyme dosage of Beerzym RAPID depends on the temperature during application and on the brewing technology.

- guide value: 80-100 mL/100 hectolitres cold wort

The enzyme is added as first component into the cylindro-conical fermenter.

Application

Shake Beerzym RAPID well before use (in the jerrycan, canister, etc.) to evenly distribute enzyme-active suspended matter which could have settled. Then dilute the homogeneous enzyme suspension with cold water and add to the cylindro-conical fermenter as first component.

Storage

Optimal storage is at 0-10 °C/32-50 °F. Higher storage temperatures lead to reduced shelf life. Avoid temperatures above 25 °C (77 °F). Reseal opened packagings tightly and use up soon.

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General Characteristics

Enzyme characteristics: the activity range of the enzyme is between pH 3.0 and pH 7.5, the optimum is at pH 5.5. The temperature range of the enzyme is between 4 °C and 65 °C, the optimum is at 45 °C.

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

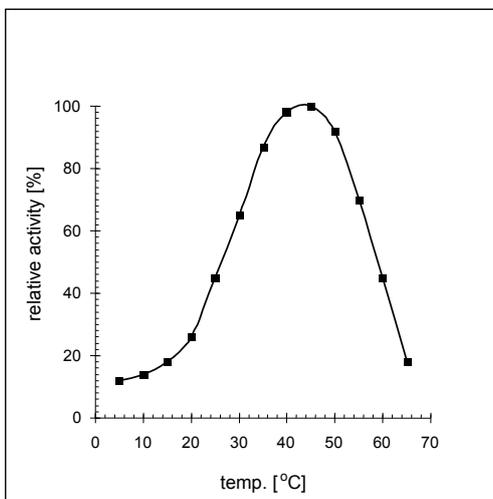


Fig. 1: influence of temperature on activity (ethyl 2-acetoxy-2-methyl-acetoacetate-substrate, 45 °C).

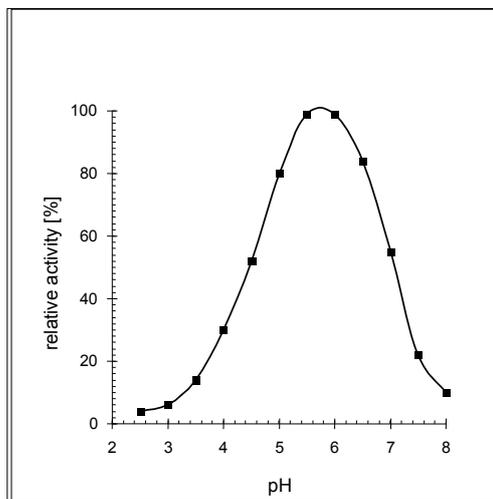


Fig. 2: influence of pH-value on activity (ethyl 2-acetoxy-2-methyl-acetoacetate-substrate, pH 5.5).

Please note: When applying Beerzym RAPID the food regulations of the individual countries currently in force have to be adhered to.