



ENDOZYM[®] Protease NP

Proteolytic enzyme active at neutral pH

→ DESCRIPTION

ENDOZYM[®] Protease NP is a neutral protease enzyme preparation obtained by submerged fermentation of selected *Bacillus subtilis* strains.

Designed to hydrolyse proteins under neutral pH conditions, it contains highly concentrated peptidase activities that enable the release of amino acids and peptides.

ENDOZYM[®] Protease NP is used in the brewing room at the beginning of mashing because it produces FAN that is subsequently useful for yeast nutrition.

It is also used in the production of plant-based beverages on its own or as an additive to other enzyme preparations during maceration and extraction to aid many aspects of subsequent production steps:

- Improvement of the clarification process using bentonite, gelatine and silica sol.
- Increased filtration and ultrafiltration efficiency and yield.
- Improved colloidal stability of the finished product over time.

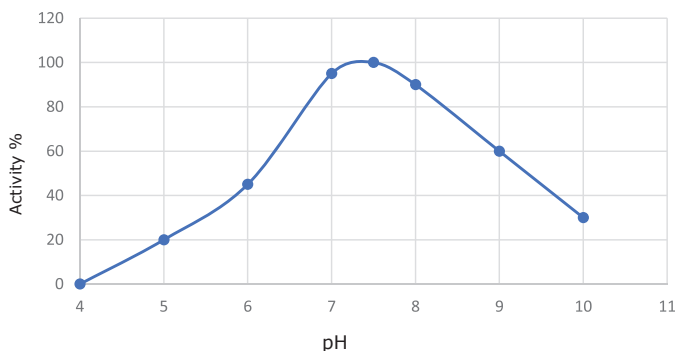
→ COMPOSITION AND TECHNICAL CHARACTERISTICS

Neutral protease from *Bacillus subtilis* (UP/g) - 1000.00

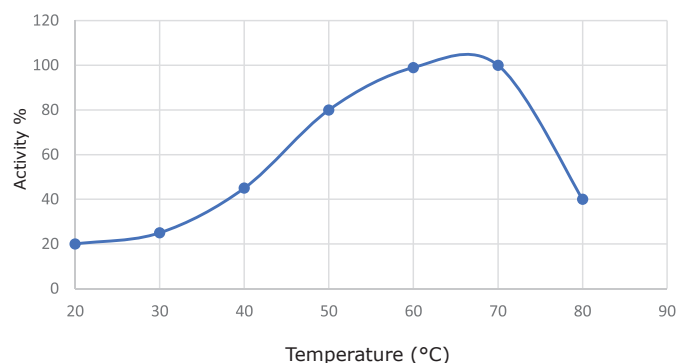
Optimal conditions of use:

- Temperature between 45 and 55°C.
- pH between 5 and 8.5

Effect of pH on activity



Effect of temperature on activity



→ DOSAGE AND APPLICATION TIME

In brewing, 30-150 g/T of malt is used at the beginning of the mash. occurs in a time of 60 to 120 minutes.





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For the production of vegetable drinks, with a dosage of between 30 and 150 g/T of flour or cereal, the complete hydrolysis of the proteins takes between 60 and 120 minutes. The dosage and time of use may vary depending on the temperature and pH of the mixture and the composition of the mass to be treated.

→ METHOD OF USE

Add Endozym Protease NP with volumetric pumps into the tanks. To protect its enzymatic action, please note that the product must always be added separately from other clarifiers, e.g. silica gels or sols and gelatine-based products.

→ ADDITIONAL INFORMATION

Its neutral protease is produced by the naturally occurring micro-organism *Bacillus subtilis*.

Microbiological purity:

Live mesophilic aerobic microorganisms <50,000/g

Coliforms <30/g

Salmonella negative in 25 g

Staphylococcus aureas: absent in 1 g

Antibacterial activity: negative

Mycotoxins: no declarable quantities

Reduced sulphates <30/g

Enterobacteriaceae <10/g

Heavy metals:

Cadmium <0.5 mg/kg

Mercury <0.5 mg/kg

Arsenic <3 mg/kg

Lead <5 mg/kg

→ STORAGE AND PACKAGING

Store in its original sealed packaging, away from light, in a cool dry place free of odours, at temperatures between 5 and 15°C. Do not freeze.

Respect the expiry date indicated on the packaging. Use quickly after opening.

25 kg net drums.

