

# Enzymation

## Panzym<sup>®</sup> BE XXL

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07/2003

### Complete Depectinization and very Good Color and Flavor Extraction for Berry Juices

#### Description

Panzym<sup>®</sup> BE XXL is a pectolytic, liquid enzyme preparation, produced through submersive fermentation of *Aspergillus species*. The newly developed pectinase product is particularly suitable for the depectinization of berry mash. Panzym<sup>®</sup> BE XXL is well-balanced and optimized in terms of the main enzyme activities.

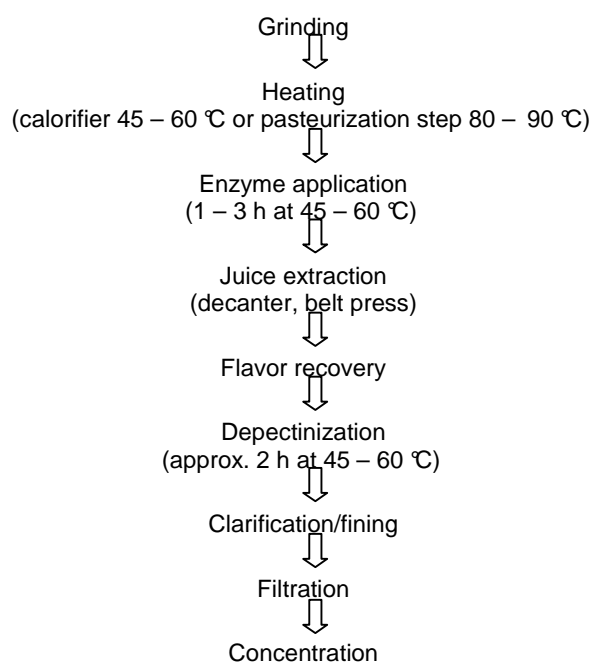
Enzymes are frequently used for the processing of mash from soft fruit. The variability of berry fruits (some have very a high pectin content, others have low pH values) requires the application of special enzymes in order to ensure economic yields. Apart from yield optimization, the separation of juice and pulp, with optimal extraction of colorants and flavors, is another important enzymatic characteristic of Panzym<sup>®</sup> BE XXL.

#### Application and Function

Panzym<sup>®</sup> BE XXL achieves very good results at short dwell times. Complete degradation of pectin occurs very quickly, so that optimum extraction and stability of the colorants and flavors can be ensured.

The enzyme is effective within a temperature range of 15 – 60 °C. Maximum activity is achieved at 50 – 60 °C.

#### Berry processing flow chart:



#### Mash Recommendation – Dosage

Application	Dosage
Blackcurrants, cranberries	200 – 400 ml/t
Redcurrants, raspberries, blackberries	50 – 100 ml/t
Strawberries, gooseberries	20 – 60 ml/t

#### Enzyme Application

The enzymes should be diluted in cold, clean water at a ratio of 1:5 to 1:10. They can be added to the enzymation tank during filling, or via a dosing unit with the product flow.

#### Juice Depectinization – Dosage

The dosages listed for the mash stage can also be used for juice depectinization. For juices with low pectin content, an enzyme dosage of 5 – 15 ml/hl is sufficient.

#### Temperature

Due to the reduced enzyme activity, temperatures below 10 °C should be avoided.

#### Safety and Purity

Panzym<sup>®</sup> BE XXL meets the specifications of FAO/WHO (JECFA and FCC) for enzymes in the food industry. When used and handled correctly, there are no known health risks associated with the product.

A micro-organism of Panzym<sup>®</sup> BE XXL is produced using the self-cloning process. According to the German Genetic Engineering Act (Gentechnikgesetz - implementing Directive 90/219/EEC), the Austrian Genetic Engineering Act (BGBL 510/1994) and the Swiss regulations "Handling of organisms in the environment SR 14.911", the product is not classified as genetically modified.

Panzym<sup>®</sup> BE XXL has a standard activity of 18,000 UPTe/ml (pH 3.5).

Descriptions of the analysis techniques and EC safety data sheets are available on request.

After sterile filtration, Panzym<sup>®</sup> BE XXL is bottled aseptically and is therefore practically germ-free. Panzym<sup>®</sup> BE XXL is a brownish, liquid enzyme preparation. It is free from preservatives and has a density of approx. 1.2 g/ml and the typical odor of fermented products.

## Storage

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The recommended storage conditions are 0 – 10 °C in intact packaging and protected from the sun. The product is formulated for optimum stability. However, enzymes gradually lose their activity over time. Prolonged storage and/or adverse storage conditions, including higher temperatures, may mean that a higher dosage is required.

## Delivery Information

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25 l PE canister

Article number 95.219.250

HS customs tariff: 3507 90 90

## Certified Quality

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Panzym® BE XXL is produced by Novozymes Switzerland AG, Neumatt, CH-4243 Dittingen, and monitored for uniformly high product quality during the production processes. These inspections cover technical function criteria as well as conformance with relevant laws governing the production and sale of foodstuffs. Strict controls are carried out immediately before and during final packaging.



Reg. No. 000480 QM

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