#### Technical Information

# Enzymation Panzym<sup>®</sup> BE XXL



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

Panzym BE XXL enzyme from Eaton's Begerow Product Line 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 BE XXL enzyme is well-balanced and optimized in terms of the main enzyme activities.

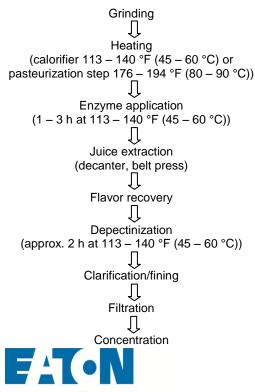
Enzymes are frequently used for the processing of mash from soft fruit. The variability of berry fruits (some have very a high pectin content, others have low pH values) requires the application of special enzymes in order to ensure economic yields. Apart from yield optimization, the separation of juice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

#### **Application and Function**

Panzym BE XXL enzyme 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 59-140 °F (15-60 °C). Maximum activity is achieved at 122-140 °F (50-60 °C).

## Berry processing flow chart



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### Mash Recommendation - Dosage

Application	Dosage in fl oz/long to (ml/to)
Blackcurrants, cranberries	6.8 – 13.6 (200 – 400)
Redcurrants, raspberries, blackberries	1.7 – 3.4 (50 – 100)
Strawberries, gooseberries	0.7 – 2.0 (20 – 60)

#### **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 6 – 19 fl oz/1,000 gal (5 – 15 ml/hl) is sufficient.

### **Temperature**

Due to the reduced enzyme activity, temperatures below 50 °F (10 °C) should be avoided.

## Safety and Purity

Panzym BE XXL enzyme 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 BE XXL enzyme 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 BE XXL enzyme has a standard activity of 59,152 PECTU/fl dr (16,000 PECTU/ml, pH 3.5).



Further safety information can be found in the relevant Material Safety Data Sheet, which can be downloaded from our website.

After sterile filtration, Panzym BE XXL enzyme is bottled aseptically and is therefore practically germfree. Panzym BE XXL enzyme is a brownish, liquid enzyme preparation. It is free from preservatives and has a density of approx. 10,015 lb/gal (1.2 g/ml) and the typical odor of fermented products.

#### **Storage**

The recommended storage conditions are  $32-50\,^{\circ}\text{F}$   $(0-10\,^{\circ}\text{C})$  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**

Panzym BE XXL enzyme is sold under article no. 95.219.250 and is available in the following package size:

6.6 gal (25 I) PE canister

HS Customs Tariff: 3507 90 90

#### North America - HQ

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# **Certified Quality**

Panzym BE XXL enzyme is regularly 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.

Panzym<sup>®</sup> is a registered trademark of Novozymes A/S.

For more information, please e-mail us at filtration@eaton.com or visit us online at eaton.com/filtration for a complete list of Eaton's filtration products.

Not all products in Eaton's Begerow Product Line are available in all regions. Please contact your local Eaton Filtration office to determine availability.

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