Enzymation Panzym[®] BE XXL

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

Panzym BE XXL enzyme 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.

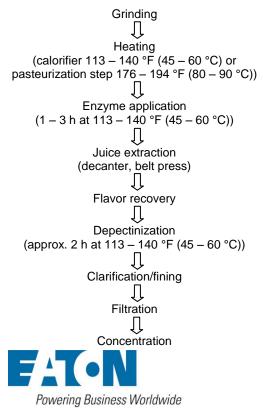
Enzymes are frequently used for the processing of mash from soft fruit. The variability of berry fruits (some have very a high pectin content, others have low pH values) requires the application of special enzymes in order to ensure economic yields. Apart from yield optimization, the separation of juice 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



Mash Recommendation – Dosage

Application	Dosage in fl oz/long to (ml/to)
Blackcurrants, cranberries	2.7 – 5.4 (80 – 160)
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 complies with the FAO/WHO (JECFA and FCC) specifications for enzymes in the food industry.

Panzym BE XXL enzyme is produced with the aid of microorganisms, which are characterized as selfcloned according to EU definition. The microorganism is classified as not genetically modified based on

- EU Directive 2001/18/EC (the version currently in effect)
- The German Genetic Engineering Act (GenTG).

The national legislation for other countries must be adhered to accordingly.

Irrespective of the classification of the production organism, the Panzym BE XXL enzyme is <u>not</u> genetically modified.

Panzym BE XXL enzyme is filled aseptically following sterile filtration and is therefore virtually germ-free. Panzym BE XXL enzyme is a brownish, liquid enzyme preparation that has the typical odor of fermented products.

Panzym BE XXL enzyme is characterized as follows:

- Production organism: Aspergillus niger
- Specified activity: 13600 PECTU/g (pectin lyase)

When used as directed and handled correctly, there are no known unfavorable effects associated with this product.

Further information on safety can be found in the Material Safety Data Sheet, which is available for download from our website.

Storage

The product should be stored with the packaging intact away from sunlight at a temperature of 32 to 50 $^{\circ}F(0 \text{ to } 10^{\circ}C)$.

Unfavorable storage conditions (exposure to direct sunlight, higher storage temperatures) may require a higher dosage.

Once opened, the product should be used up as soon as possible.

Delivery Information

Panzym BE XXL enzyme has the article number 95.265 and is supplied in the following packaging unit:

44 lb (20 kg) PE canister

Certified Quality

Panzym BE XXL enzyme is inspected regularly during the production process to ensure consistently high product quality.

Strict controls also take place immediately before and during final packaging.

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