

Enzyme Treatment Panzym® First Yield



Highly Active Pectinase for Mash Enzymation of Pomaceous Fruit

Panzym First Yield enzyme from Eaton's Begerow Product Line is a special pectolytic enzyme preparation for first mash enzymation. In the production of apple juice in particular, the first application of mash enzymes is designed to increase the juice yield. The balanced composition of Panzym First Yield enzyme enables a wide range of applications in terms of fruit variety and degree of ripeness.

Application and Effect

Due to the special activity spectrum of the pectolytic main activity, Panzym First Yield enzyme can easily be integrated into any processing technology. The pectin structure of the pulp can thus be broken down efficiently and fast. Haze is reduced quickly, which facilitates downstream process steps. Panzym First Yield enzyme should be distributed uniformly in the mash through dosage in the mill.

The flow of juice from the mash is facilitated, so that maximum press capacity can be achieved.

The application of Panzym First Yield enzyme during mash processing results in fast colloid breakdown that goes far beyond depectinization.

Effect on the mash:

- Increase in mash yield
- Reduction of juice haze
- Increase in press capacity
- Reduction of press cycles
- Improved filtration
- Simple press and system cleaning

Dosage

Dosage recommendations will depend on the quality, fruit variety, degree of ripeness, state of health and operational requirements.

For mash enzymation the product should ideally be added via a metering pump as a 10% enzyme solution to the milling device or in the mash flow. Intensive stirring or circulation by pumping should be avoided. Panzym First Yield enzyme can be used with all common processing systems such as belt presses, hydraulic presses and decanters.

Intended application	Dosage fl oz/long ton (ml/to)	Temperature in °F (°C)/ time
Mash from fresh fruit	1.4 – 2.7 (40 – 80)	59 – 86 (15 – 30)/ min. 30 minutes
Mash from stored fruit	1.7 – 3.4 (50 – 100)	59 – 86 (15 – 30)/ min. 30 minutes
Negative alcohol test after juice extraction	5 – 6.8 (150 – 200)	59 – 86 (15 – 30)/ min. 30 minutes

Special Notes

The enzyme efficiency is temperature-dependent. Optimum activity is between 59 and 77 °F (15°C – 25 °C). The reaction speed drops with a decrease in temperature. While activity is generally maintained, the effect is delayed. Panzym First Yield enzyme becomes inactive at temperatures > 140 °F (60 °C).

Panzym First Yield enzyme is inactivated either in the aroma shipping recovery system or during pasteurization.

Safety

Panzym First Yield enzyme complies with FAO/WHO (JECFA and FCC) specifications for enzymes in the food industry. Application of the product poses no hazard to health if used as directed and properly processed.

Panzym First Yield enzyme has a pectolytic activity of 40,600 PECTU/fl dr (11,000 PECTU/ml, pectinlyase).

Panzym First Yield enzyme is aseptically bottled after sterile filtration. Panzym First Yield enzyme is a brownish, liquid enzyme compound and has the typical odor of fermented products.

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

Storage

The product should be stored at 41 – 50 °F (5 – 10 °C) in intact packaging and protected from the sun. Enzyme activity is standardized, yet activity will diminish over time. The activity of liquid enzymes is reduced by 1 – 2% per month. This loss is optimally compensated for over the minimum shelf life through the enzyme formulation. Unfavorable storage conditions (direct sunlight, increased storage temperatures) may require a higher dosage.

Delivery Information

Panzym First Yield enzyme is sold under article no. 95.242.250 and is available in the following package size:

6.6 gal (25 l) PE canister

HS Customs Tariff No.: 3507 90 90

Certified Quality

Panzym First Yield enzyme is regularly monitored during production to ensure a consistently high quality. These inspections include wide-ranging technical functional criteria as well as safety in accordance with the relevant laws governing the production of foods. Strict controls also take place immediately before and during final packaging.

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

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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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