

Enzyme Treatment Panzym® Second Yield



Special Enzymes Designed for Use in the Second Mash Enzymation of Pomaceous Fruit Mash

Panzym Second Yield enzyme from Eaton's Begerow Product Line is a highly active enzyme preparation with pectinlyase main activity. The product was created from an *Aspergillus* species by combining different pectolytic enzymes from two different conventional fermentation techniques (submerge and solid phase fermentation).

The main aim was to develop a special enzyme for second mash enzymation (pomace) without a range of secondary activities, in order to achieve an efficient increase in juice yield and improved use of press capacities.

Application and Effect

Due to the special activity spectrum of pectolytic main activities, Panzym Second Yield enzyme can easily be integrated into any processing technology.

Effect on pomace during second mash enzymation

- Enhanced juice yield
- Improved use of press capacities
- Improved system sanitizing
- High tolerance of fluctuations in pH value and temperature

Effect on the juice

- Low colloidal substance content
- Improvements in downstream process steps

Dosage

Enzymation of fruit pomace depending on the first yield.

First Yield	Dosage fl oz/long ton (ml/to)	Temperature in °F (°C)/ time
80%	8.4 – 16.8 (250 – 500)	131 – 140 (55 – 60)/ 90 – 120 minutes
70%	5.3 – 12.9 (160 – 380)	
60%	4 – 8 (120 – 240)	

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

During the second mash, enzymation of the pomace good distribution of the enzyme solution should be ensured. The product should ideally be added to the mash via a metering pump as a 10% (aqueous) enzyme solution.

Special Notes

The enzyme efficacy is temperature-dependent. Optimum activity occurs between 131 – 149 °F (55 – 65 °C). The reaction speed drops with a decrease in temperature. While activity is generally maintained, the effect is delayed. Panzym Second Yield enzyme becomes inactive at temperatures > 140 °F (60 °C).

Safety

Panzym Second 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 Second Yield enzyme has a pectolytic activity of 36,900 PECTU/fl dr (10,000 PECTU/ml, pectinlyase).

Panzym Second Yield enzyme is aseptically bottled after sterile filtration. Panzym Second 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 Second Yield enzyme is sold under article no. 95.241.250 and is available in the following package size:

6.6 gal (25 l) PE canister

HS Customs Tariff: 3507 90 90

Certified Quality

Panzym Second 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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