

Enzyme Treatment Panzym® Smash XXL



Pure Pectinlyase, Particularly for Mash Enzymation of Pomaceous Fruit

Panzym Smash XXL enzyme from Eaton's Begerow Product Line is a pectolytic, liquid enzyme preparation, produced by submerged fermentation of an *Aspergillus* species. A new pectinase product, produced for mash pome fruit. The product is a pure pectin lyase.

Applied to fruit mashes, Panzym Smash XXL enzyme offers exceptional mash performance. It not only significantly increases juice yield and press capacity, the resulting juice also satisfies all relevant quality standards.

Application and Function

Panzym Smash XXL enzyme was specially designed for the treatment of fruit and vegetable mashes, and for the maceration of plant tissue. Soluble and insoluble pectin, as well as haze-inducing polysaccharides, are removed efficiently. The juices resulting from mash treatment with Panzym Smash XXL enzyme meet all relevant quality specifications for fruit juices.

Panzym Smash XXL enzyme, applied to fruit or vegetable mashes and/or pomaces, results in a significant increase in capacity in solid/liquid separation (e.g. decanter, press) and higher juice yields.

The diluted enzyme solution (ideally 10% in tap water) is added directly to the mill or the mash tank, preferably via a metering pump.

Effect on the mash:

- Increased amount of free run juice
- Higher yield and capacity for horizontal presses, belt presses or decanters
- Juice yield of more than 92% is possible (HPXI Bucher presses)
- Filling capacity up to 14.76 st/h (15 to/h) (HPXI Bucher presses)
- Press capacity up to 9.84 st/h (10 to/h) (HPXI Bucher presses)
- No risk of overmaceration under normal process conditions
- Very tolerant of pH and temperature variations
- Dry pomace, therefore easier and faster press cleaning

Effect on the juice:

- Product cannot produce galacturonic acid!
- Product cannot produce cellobiose!
- The juice meets the relevant quality specifications
- Therefore a variety of options for mixing the juice
- Less trub and sediment
- Suitable for the production of cloud-stable juices
- Lower release of colloids into the juice, therefore easier subsequent treatment (better filterability)

Dosage

Application	Dosage fl oz/long ton (ml/to)	Dwell time/ temperature
Mash from fresh fruit	1.4 – 2.7 (40 – 80)	at least 30 min/ 59 – 77 °F (15 – 25 °C)
Mash from stored fruit	1.7 – 3.4 (50 – 100)	at least 30 min/ 59 – 77 °F (15 – 25 °C)
For achieving a negative alcohol test after pressing/decanting	5 – 6.8 (150 – 200)	at least 30 min/ 59 – 77 °F (15 – 25 °C)

Special Notes

Dosage: Stirring should be avoided.

The dosage strongly depends on the quality, type, degree of ripeness and operating conditions.

Holding time: Enzymes need time to react. Therefore please allow a holding time of at least 30 minutes.

Temperature: The enzyme is also active at higher temperatures (up to 149 °F (65 °C)). However, higher temperatures are critical for aroma quality and can lead to microbial problems within a temperature range of 86 – 113 °F (30 – 45 °C). Mash temperatures below 50 °F (10 °C) should be avoided.

Panzym Smash XXL enzyme is inactivated either in the flavoring system or during pasteurization.

Safety and Purity

Panzym Smash XXL enzyme complies 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.

Panzym Smash 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 Smash XXL enzyme has a standard activity of 83,100 PECTU/fl dr (22,500 PECTU/ml, pH 3.5).

After sterile filtration, Panzym Smash XXL enzyme is bottled aseptically and is therefore practically germ-free.

Panzym Smash XXL enzyme is a brown, 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.

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

Storage

The recommended storage conditions are 32 – 50 °F (0 – 10 °C) in intact packaging, and protected from sunlight.

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 Smash XXL enzyme is sold under article no. 95.212.250 and is available in the following package size:

6.6 gal (25 l) PE canister

HS Customs Tariff: 3507 90 90

Certified Quality

Panzym Smash 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® 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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