

Enzyming Panzym[®] YieldMASH

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Pure, Highly Effective Polygalacturonase, Specially Developed for Mash Enzyming of Pomaceous Fruit

Description

Panzym[®] YieldMASH is a pectolytic, liquid enzyme preparation, produced through submersion fermentation of *Aspergillus species*.

This special mashing enzyme with high polygalacturonase activity was developed for enzyming of pomaceous fruit. The product is based on a polygalacturonase without interfering secondary activities.

Effect on the mash:

- ▶ Panzym[®] YieldMASH has a standard activity of 46,000 PGU/ml (pH 3.5)
- ▶ Significant increase in press capacity; higher capacity for horizontal presses, belt presses, or decanters
- ▶ Large proportion of free running juice
- ▶ Very good juice yield; up to 96% in combination with aqueous extraction possible
- ▶ No over-maceration
- ▶ High tolerance for fluctuations in temperature and pH value
- ▶ Marc is suitable for pectin extraction
- ▶ Dry marc enables simple, fast and easy discharge/press cleaning; fewer disposal problems
- ▶ Suitable for optimum secondary extraction

Effect on the juice:

- ▶ The juice meets the relevant quality standards
- ▶ Soluble pectin is broken down efficiently
- ▶ Product cannot produce cellobiose
- ▶ Little trub and sediment
- ▶ Also suitable for production of haze-stable juices
- ▶ Lower release of colloids into the juice, therefore easier subsequent processing (better filterability)

Application and Effect

Panzym[®] YieldMASH was specially developed for enzyming of fruit mash.

Panzym[®] YieldMASH, applied to fruit mash results in a significant increase in capacity or solid/liquid separation (e.g. decanter, press) and higher juice yield.

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

Panzym[®] YieldMASH is inactivated either in the flavoring system or during pasteurization.

Dosage

Application	Dosage ml/to	Holding time/temperature
Mash from fresh fruit	40 – 60	15 – 30°C, 30 – 60 minutes
Mash from stored fruit	50 – 100	15 – 30°C, 30 – 60 minutes

Special Notes

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

Holding time: Enzymes need a certain amount of reaction time. Please ensure a minimum holding time of 30 minutes.

Temperature: The enzyme has wide temperature range (10 – 50°C). However, higher mash temperatures above 30°C are critical for the quality of the flavor and can lead to microbial problems within a temperature range of 30 – 45°C. Avoid mash temperatures below 10°C.

Safety and Purity

Panzym[®] YieldMASH meets the specifications of FAO/WHO (JECFA and FCC) for enzymes used in the food industry. Application of the product poses no hazard to health if used as directed and processed properly.

Panzym® YieldMASH is produced based on the self-cloning technique.

According to - the German Genetic Engineering Act (implementing Directive 90/219/EEC),
 - Austrian legislation (BGBL 510/1994), and
 - the Swiss regulations (Ordinance on the Release into the Environment of Organisms SR 14,911),

it is classified as a non-genetically modified product.

Descriptions of the analysis techniques and EC Material Safety Data Sheet are available on request.

Panzym® YieldMASH is filled aseptically following sterile filtration and is therefore virtually germ-free. Panzym® YieldMASH is a yellowish liquid enzyme preparation with a density of approximately 1.12 g/ml and a typical odor of fermented products.

Storage

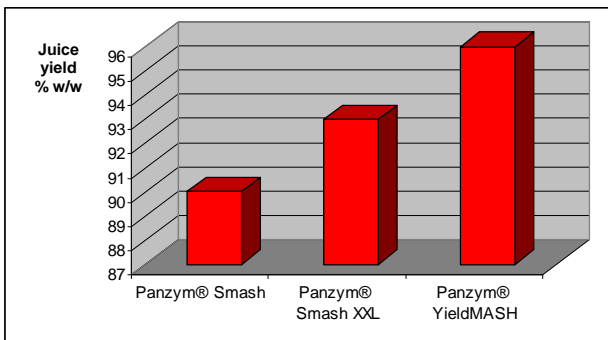
It is recommended to store the product with the packaging intact away from sunlight at a temperature of 0 to 10°C. The product is formulated for optimum stability. Nevertheless, the activity of enzymes gradually diminishes over time. Excessively long periods of storage and/or adverse conditions including high temperatures could necessitate increasing the dosage.

Delivery Information

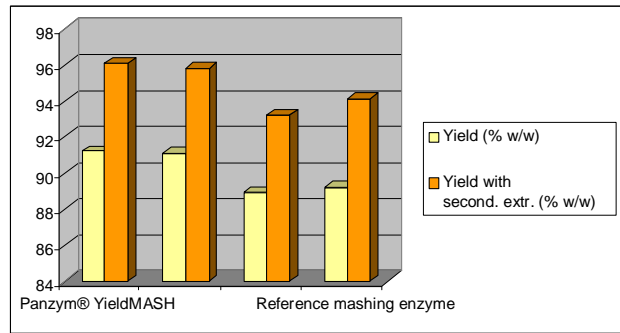
25-liter PE canister – article number 95.226.250

HS customs tariff: 3507 90 90

Performance

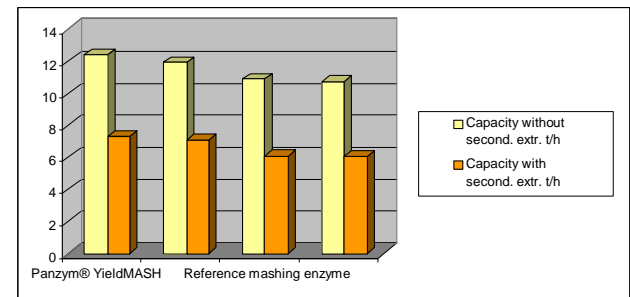


Improved juice yield



Juice yield (% w/w)	Panzym® YieldMASH	Reference mashing enzyme
Without secondary extraction	91.1	88.9
With secondary extraction	96.1	94.1

Improved press capacity



Press capacity (t/h)	Panzym® YieldMASH	Reference mashing enzyme
Without secondary extraction	11.9	10.9
With secondary extraction	12.4	11.9

Certified quality

Panzym® YieldMASH is produced by Novozymes A/S, Denmark, and monitored for uniformly high product quality during the production processes. These inspections include technical functional criteria as well as safeness in accordance with relevant laws governing production of foods. Strict controls are additionally carried out immediately prior to and during final packaging.



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