

# Enzyming Panzym<sup>®</sup> Clear

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10/2006

## Depectinization of Apple and Pear Juice

### Description

Panzym<sup>®</sup> Clear is an enzyme preparation consisting of a blend of pectolytic enzymes produced through submerge fermentation of *Aspergillus species*. The product guarantees complete breakdown of pectins. Largely independent of the pH value and the degree of ripeness of the fruit. When applied to fruit juices, Panzym<sup>®</sup> Clear offers complete removal of araban.

### Application and Effect

#### Effect on depectinization:

- Brilliant alcohol test  
→ complete removal of pectin
- High temperature stability  
→ activity up to 55 °C
- High efficacy even at low pH values

#### Effect on subsequent processing steps:

- Complete removal of araban  
→ no problems during further processing
- Improved filtration capacity

Depectinization is usually carried out after the flavor extraction or pasteurization stage. The product should preferably be diluted with tap water and added as a 10 % dilution to the depectinization tank either in portions or by means of a metering pump.

### Dosage

Application	Dosage ml/ton	Temperature/ maceration time
Apples/pears	20 – 50	45 – 55 °C 1 – 2 hours

Shorter or longer maceration times are possible. Completion of the enzyme reaction should be monitored carefully by alcohol tests.

### Special Notes

Before commencing the next processing stage (e.g. fining, filtration) it is advisable to use an alcohol test (pectin test) to verify that pectin was broken down completely.

### Safety and Purity

Panzym<sup>®</sup> Clear complies with the 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 processed properly.

Panzym<sup>®</sup> Clear has a standard activity of 5,000 PECTU/ml.

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

Panzym<sup>®</sup> Clear is filled aseptically following sterile filtration and is therefore practically germ-free. Panzym<sup>®</sup> Clear is a brownish, liquid enzyme preparation. It is free from preservatives and has the typical odor of fermented products.

### Storage

The recommended storage conditions are 0 – 10 °C in intact packaging and protected from the sun. 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 require higher dosage.

### Delivery Information

25-liter PE canister – article number 95.227.250

HS customs tariff: 3507 90 90

## Certified Quality

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Panzym<sup>®</sup> Clear is produced by Novozymes Switzerland AG, Neumatt, CH-4243 Dittingen and is constantly monitored during the production process for consistently high product quality. These inspections cover technical functional criteria as well as conformance with relevant laws governing the production and sale of foodstuffs. Strict controls are additionally carried out immediately prior to and during final packaging.



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