

## Enzyme Treatment Panzym® Pro Color



### Special Enzyme for the Processing of Berries

Panzym Pro Color enzyme from Eaton's Begerow Product Line is a highly active pectinase preparation that has been specially developed for the processing of berries. It was created by combining different pectolytic enzymes from two different conventional fermentation techniques (submerge and solid phase fermentation). To increase juice yield, color protection and stabilization are further important characteristics of Panzym Pro Color enzyme.

#### Application and Effect

Due to the special activity spectrum of the pectolytic main activity, and cellulose and hemicellulose secondary activities, Panzym Pro Color enzyme can easily be integrated into any processing technology. It is thus possible to specifically break down the structure of the berries at the mash stage, without the risk of pulping. Targeted and very efficient color yield and retention is therefore possible and the yield of juice with low haze substance content is optimized. The flow of juice from the mash is facilitated, so that maximum press capacity can be achieved.

The application of Panzym Pro Color enzyme in berry juice results in intensive colloid breakdown that goes far beyond depectinization.

Panzym Pro Color enzyme breaks down mucilaginous substances of plant origin, which are formed due to microbial infection of the fruits, thereby increasing the filtration performance of the juices.

#### Effect on the mash

- Increased color yield
- No pulping of the mashes
- Increase in press capacities
- Increase in mash yield

#### Effect on the juice

- Simplified juice clarification
- Enhanced colloid breakdown

For mash enzymation the product is added in portions to the tank via a metering pump or continuously into the mash line, ideally after heating ( $\leq 122^\circ\text{F}$  ( $50^\circ\text{C}$ )). For juice enzyme treatment, the product should be added to the first parts in the enzyme treatment tank.

#### Dosage

Appli- cation	Dosage	Temperature in °F (°C)/ time
Mash	3.4 – 10.2/long ton (100 – 300 ml/to)	122 (50)/ 1 h
Juice	6.4 – 38.6 fl.oz/1,000 gal (50 – 300 ml/1,000 l)	122 (50)/ 1 h

#### Special Notes

The enzyme efficiency is temperature-dependent. Optimum activity occurs between  $113$  and  $131^\circ\text{F}$  ( $45 - 55^\circ\text{C}$ ). The reaction speed drops with a decrease in temperature. While activity is generally maintained, the effect is delayed. Panzym Pro Color enzyme becomes inactive at temperatures  $> 140^\circ\text{F}$  ( $60^\circ\text{C}$ ).

#### Safety

Panzym Pro Color 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 Pro Color enzyme has a pectolytic activity of 36,900 PECTU/fl dr (10,000 PECTU/ml, pectinylase).

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

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

#### Storage

The product should be stored at  $41 - 50^\circ\text{F}$  ( $5 - 10^\circ\text{C}$ ) 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

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Panzym Pro Color enzyme is sold under article no. 95.239.250 and is available in the following package size:

6.6 gal (25 l) PE canister

HS Customs Tariff: 3507 90 90

## Certified Quality

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Panzym Pro Color 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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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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