SIHA

Enzymation
Panzym® Univers

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Multi-purpose enzyme for mash enzymation and juice depectinization of pomaceous, stone, and soft fruit

Description

Panzym® Univers is a multi-purpose pectinase for mash enzymation and juice depectinization of pomaceous, stone, and soft fruit. The product is particularly highly concentrated, enabling fast and economic juice extraction from fruit mash. Panzym® Univers leads to complete pectin removal within a minimum amount of time and results in a brilliant alcohol test.
Panzym® Univers is produced from a conventional strain of *Aspergillus Niger*. It is a clear, brown liquid with the typical odor of fermented products.

Application and Function

Mash enzymation
Panzym® Univers leads to a breakdown of soluble pectin, reduces the juice viscosity, and increases the yield of juice and value-adding fruit ingredients. Panzym® Univers is best added into the mill by a metering pump.

Juice depectinization
Due to its wide action spectrum, Panzym® Univers leads to almost completed breakdown of pectins. This facilitates clarification and enables uncomplicated filtration with high filter service life. The juices are characterized by high stability. The product is added into the juice line or into the tank with the first juice content. Application preferably as approx. 10 % solution with cold tap water.

Dosage

	Dosage ml/hl (oz/1000 gal)	Temperature/ maceration time
Mash		
Apples/pears	7 – 10 (9 – 13)	0.5 – 1 h at 20 – 30 °C (68 – 86 °F)
Soft fruit	5 – 16 (6 – 20)	1 – 2 h at 45 – 55 °C (113 – 131 °F)
Stone fruit	5 – 15 (6 – 19)	1 – 2 h at 45 – 55 °C (113 – 131 °F)
Juice		
Apples/pears	1 – 3 (1 – 4)	4 – 8 h at 20 – 30 °C (68 – 86 °F) 1 – 2 h at 45 – 55 °C (113 – 131 °F)
Soft fruit	2 – 5 (2.5 – 6)	4 – 8 h at 20 – 30 °C (68 – 86 °F) 1 – 2 h at 45 – 55 °C (113 – 131 °F)
Stone fruit	2 – 8 (2.5 – 10)	4 – 8 h at 20 – 30 °C (68 – 86 °F) 1 – 2 h at 45 – 55 °C (113 – 131 °F)

The enzyme efficacy is temperature-dependent. Optimum activity is achieved at 45 – 55 °C (113 – 131 °F). The reaction speed decreases with decreasing temperature. While activity is maintained in principle, the effect is severely delayed. At temperatures below 20 °C (68 °F), a higher dosage should therefore be used. Panzym® Univers is inactivated through temperatures > 60 °C (> 140 °F) and contact with bentonite.

Safety and Purity

Panzym® Univers meets the specifications of FAO/WHO (JECFA and FCC) for enzymes that are used in the food industry. If used appropriately and processed correctly, the application involves no health risks.

Pectolytic activity is standardized to 7000 PECTU/ml (pH -3.5). Descriptions of the analysis techniques and EC Material Safety Data Sheet are available on request. Panzym® Univers is aseptically bottled after sterile filtration and is therefore practically germ-free. It does not contain preservatives.

Storage

Panzym® Univers must be stored in a cool (< 5 °C (< 41 °F)) and dry place. Under these conditions the declared activity is maintained for a minimum of 1 year. At storage temperatures of 20 °C (68 °F) the declared activity of Panzym® Univers is maintained for a minimum of 3 months. After the respective period, activity is expected to decrease by 1 – 2 % per month. Once a package has been opened, it should be used up as soon as possible.

Delivery Information

25 l (6.6 gal) PE can (BEGEROW article no. 95.225.250)

1 l (0.26 gal) PE bottle (BEGEROW article no. 95.225.010)

HS customs tariff: 3507 90 90

Certified Quality

Panzym® Univers is produced by Novozymes A/S, Denmark. During the production process it is regularly monitored to ensure consistently high product quality. These tests cover technical function criteria as well as conformance with the relevant laws governing the production and sale of foodstuffs. Strict controls are carried out immediately before and during final packaging.

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