

Universal enzyme

for the production

of fruit juice

## **Product Description**

Fructozym<sup>®</sup> P is a liquid, highly concentrated pectolytic enzyme preparation for a fast and complete pectin degradation in fruit mash and fruit juice.

Permitted according to the laws and regulations currently in force. Purity and quality are proved by specialized laboratories.

## **Aim of Treatment**

- rapid breakdown of pectic substances in fruit mash for enhanced pressability and liberation of valuable fruit ingredients.
- complete pectin degradation in juice, precondition for good clarification and filtrability.

# **Product and Effect**

Fructozym<sup>®</sup> P can be applied for modern fruit juice production in an universal manner (exception: pome fruit mash), due to its well-balanced combination of pectin-decomposing main activities (pectinesterase, pectin lyase, endo-polygalacturonase) and a versatile spectrum of useful side activities.

Fructozym® P effects optimum disintegration of mash from berries and stone fruits. The rapid degradation of pectin results in a drastic reduction of mash viscosity, thus good pressability, high juice yield and increase in valuable juice ingredients are achieved. In the juice, Fructozym® P breaks down the pectin skeletal structure which has a stabilizing effect on sediments, thus creates the prerequisite for good clarification and filtrability. Especially for the subsequent concentrate production, a complete pectin decomposition is indispensable. The arabanase side activity in Fructozym® P securely protects from possible araban haze in apple juice concentrate making.

#### Combination with amylase:

Starch in pome fruit juices often causes clarification and filtration difficulties. The required demand of amylase from our high-performance Fructamyl<sup>®</sup> series can be determined by means of the iodine test (application see Erbslöh-SümoTEST). Fructozym<sup>®</sup> P is applied either solely, or in combination with amylase, at temperatures ranging from 20-55 °C.

## Dosage

Enzyme dosages depend on raw material, degree of maturity, temperature and reaction time. With regard to cold fermentation, thermally treated juice and the use of overstored and low-acid table fruits, the demand of Fructozym<sup>®</sup> P is accordingly higher.

Standard guide values at 45-55 °C and reaction time of 1-2 h:		
fruits	mL/1000 kg mash	mL/1000 L juice
apples (10-15 °Bx)		5-15
apples (20-25 °Bx)		15-50
currants	50-200	20-80
other berries	30-120	15-60
stone fruits	20-80	10-40

### **Application**

Fructozym<sup>®</sup> P is diluted with cold tap water to a 5-10 % solution. For coloured juice mash, dosage is made either directly into the mash lines after the heater, or into the mash tank as first component. A second dosage to the juice is added for complete depectinization.

For pome fruit juice processing, we recommend to apply Fructozym<sup>®</sup> MA for mash enzymatization, and Fructozym<sup>®</sup> P for juice treatment. Fructozym<sup>®</sup> P is then dosed either to the fresh juice or is added into the clarification tank after the aroma recovery unit as first component, or is added continually during filling.

#### Storage

Store in a cool place. Reseal opened packagings immediately and tightly and use up within a short time.