

## Pectinase 162L - P162L



- Ideal for the peeling of citrus fruit
- Insoluble and soluble depectinisation
- Excellent low pH stability
- Improved yields in juice extraction
- Ideal for guava processing

Pectinase 162L contains a unique blend of pectinases with a high Polygalacturonase (PG) to Pectin Lyase (PL) ratio and a moderate maceration index specifically designed for the peeling of citrus fruit.

The mixture of carbohydrases in Pectinase 162L breaks down the albedo by digesting soluble and insoluble pectins, cellulose and arabinoxylan, causing the fruit segments to separate from the skins.

Enzymatic treatment provides a more gentle and less energy intensive process than mechanical peeling. It is less likely to damage the fruit resulting in segments with increased visual appeal and lower losses.

Pectinase 162L is ideal for use in the production of florida cocktail and other fresh citrus salads.

### S P E C I F I C A T I O N

Activity	900 Endogalacturonase U/g 900 Cellulase U/g
Biological Source	<i>Aspergillus sp</i>
Form	Brown liquid
Working pH	3.0 - 5.5
Temperature range	35 - 45°C

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## APPLICATION & DOSAGE

Pectinase 162L is ideal for citrus fruit peeling. The fruit should be first scored (cut) to allow penetration of the enzyme to the albedo. The scored fruit should be placed in an enzyme vacuum bath containing 1 - 2 % Pectinase 162L. The skins will separate after 3 - 6 minutes depending on the temperature. A temperature of 35 - 45°C is ideal. Pectinase 162L can also be used for fruit processing. As a guide, juice extraction is carried out at a dose rate of 50 - 100 ml/tonne in the crusher/pulper stage, juice clarification is carried out at a dose rate of 10 - 20 ml/tonne at the holding tank stage. Reactions to be carried out for 1 - 2 hours in a stirred vessel. Exposure to temperature above 75°C will inactivate the product in minutes. In common with other pectinases, Pectinase162L activity is reduced by bentonite and it is recommended that the enzyme action is allowed to complete before the bentonite treatment is performed. A Technical Bulletin (TB102) is available on request with more detailed information regarding citrus processing.

### HEALTH AND SAFETY

Always read the Health and Safety sheet (MSDS) before use and retain. If you are in any doubt about recommended product handling and safety, please contact Biocatalysts before use. Generally, when using enzymes avoid contact with the skin and eyes and do not breathe dusts or aerosols containing them.

### STORAGE

Activity will remain above the minimum analysis specification for at least 6 months from the date of the Batch Certificate of Analysis, when stored below 20°C. Refrigeration is advantageous but not essential.

### ALLERGENS

May contain trace amounts of dairy lactose and soy products as a carry-over from fermentation substrates used in production.

### FOOD STATUS

Prepared from enzymes of GRAS status and manufactured to FCC/JECFA/WHO/FAO recommendations for enzymes used in food processing.

### QUALITY

#### 1. Food Safety Policy

The company operates a Hazard Analysis at Critical Control Points (HACCP) system. This ensures that ingredients and the production environment are regularly monitored for contamination and that the processes are designed to produce safe products every time.

#### 2. Good Manufacturing Practice (GMP)

The company's integrated management system encompasses Total Quality, Health and Safety, Food Safety and GMP.

#### 3. ISO9001

Biocatalysts Ltd is certified to BS ISO9001: 2000. Regular Audits are carried out by the British Standards Institute (BSI) to ensure continuing compliance with the standard.

### AVAILABILITY

Liquids: standard 25kg nett plastic jerry cans.  
Non-standard quantities of 5kg, 215kg and 1000kg are also available for some products, please enquire.

The production micro-organism used in this product is not a GMO. Within the proposed guidelines of the European Union regarding Genetically Modified products, the above product would be classed as GMO free.

