



# ENZYDEX

**Enzyme blend for reduced viscosity, improved clarification and sugar recovery**

In sugar processing, dextran formation caused by microbial activity increases juice viscosity, reduces clarification efficiency, impacts crystallization, and contributes to sugar losses during manufacturing.

Enzydex is a specialized dextranase enzyme developed to hydrolyse dextran into lower molecular weight sugars, used in sugar manufacturing operations.

## Mode of Action

Enzydex is a fungal dextranase (1,6- $\alpha$ -D-glucan 6-glucanohydrolase) produced through controlled fermentation of *Penicillium Paecilomyces*:

- Hydrolyses internal  $\alpha$ -1,6-glycosidic bonds of dextran
- Converts dextran into lower molecular weight sugars
- Reduces viscosity caused by dextran accumulation, save steam in process.
- Improves clarification, pan boiling, crystallization, and centrifuge efficiency
- Enhances overall process efficiency and reduces sugar losses

## Product Key Benefits

- Hydrolyses dextran, Improves clarification efficiency
- Reduces overall process viscosity
- Improves pan boiling performance
- Enhances centrifuge efficiency
- Reduces sugar losses through improved process efficiency
- Supports overall manufacturing system improvement with prolonged use

## Product Application

### Applicable in sugar manufacturing processes across:

- Milling and juice extraction
- Clarification systems
- Refinery operations
- Vacuum pan boiling and crystallization

### Application dosage may vary depending on:

- Climatic conditions
- Cane variety
- Dextran levels
- Process conditions

## Operational Conditions

- Temperature: 35 – 70°C
- pH: 5.0 – 7.5

## Dosage

- 3–5 ppm (3–5Kg per MT of cane crushed) depending on dextran levels
- 25–30 ppm on raw sugar

## Product Characteristics

- Enzyme Type: Fungal dextranase (1,6-alpha-β-glucan 6-glucanohydrolase)
- Production Organism: *Penicillium Paecilomyces*
- Form: Liquid
- Appearance: Brown

## Product Packaging

- Minimum 12 months below 30°C

## Product Shelf Life

- 25 kg HDPE drums

## Product Handling

Enzymes are proteins and require controlled handling:

- Avoid inhalation of dust or aerosols
- Use PPE including gloves, protective clothing, and eye/face protection
- Prevent splashing and aerosol formation
- Flush spills with water to avoid dust formation
- Wash contaminated clothing before reuse
- Follow MSDS guidelines for safe handling



ISO 9001:2015 Certified | FSC 22000 Certified

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Certifications:

