



Catalysts

*making things happen...*

ISO 9001:2015 Certified | FSSC 22000 Certified

# Enzysach 35

## An Efficient Dextrose Syrup Enzyme

Production of dextrose syrups is a well-established process. The enzyme application is rather complex with final syrup requirements determining the optimal saccharification parameters. This also includes the choice of enzyme. Catalysts offer a range of saccharification products designed to cover the entire application spectrum.

ENZYSACH 35 is engineered blend of exclusive enzyme for the entire application of saccharification aspect in the starch processing units. It hydrolyzes  $\alpha$ -1, 4-glucosidic bonds of sugars present in liquefied slurry of starch.

### PRIMARY BENEFICIARY FUNCTION

- Higher glucose yield with lower reversion rate
- Higher content of DP1 with controlled higher DP profile
- Low risk of syrup infection due to high temperature running conditions up to 64°C

### SECONDARY BENEFICIARY FUNCTION

- Ion exchange cost saving due to less chemical utilization and being operated on low pH
- Enables optimal, cost-effective saccharification in a variety of plant designs
- Stabilized products maintain constant activity during storage
- Higher-activity products reduce ordering, handling, and shipping costs

### PRODUCT APPLICATION

The dosage requirement for Saccharification by ENZYSACC 35 depends upon the process, applied pH, DS, temperature, type of raw material and reaction time, which are very important. It has shown superior performance in many different saccharification systems with a variety of starches from different whole grains, including corn, sorghum, wheat, rice and barley.

## PRODUCT CHARACTERISTICS

|                  |  |
|------------------|--|
| Occurrence       | Liquid   |
| Appearance       | Light to dark brown (Color vary from batch to batch) |
| Specific Gravity | 1.05-1.15  |

## DOSING

0.4 to 0.6 Kg per metric ton of slurry

## OPERATING PARAMETERS

|                |                                       |
|----------------|---------------------------------------|
| Temperature    | 58-62°C                               |
| pH             | 4.2 – 4.5                             |
| Running DS     | 32 ± 3 %                              |
| Retention time | Depend on final product specification |

## PACKAGING

HDPE drums 30 Kg each

## PRODUCT STORAGE

|            |   |
|------------|---|
| Below 10°C | Minimum shelf life of 6 months                  |
| 10-25°C    | Best used within 3 months from date of delivery |

## PRODUCT HANDLING

- Enzymes are proteins. Inhalation of dust or aerosols may induce sensitization and may cause allergic reactions in sensitized individuals. Some enzymes may irritate the skin, eyes and mucous membranes upon prolonged contact. The product may create easily inhaled aerosols if splashed or vigorously stirred.
- Spilled product may dry out and create dust. Spilled material should be flushed away with water. Avoid splashing. Left over material may dry out and create dust.
- Wear suitable protective clothing, gloves and eye/face protection
- Contaminated cloths should be properly washed
- MSDS is supplied with the product. Follow MSDS safety instructions for more details.

## CATALYSTS BIO-TECHNOLOGIES PVT. LTD.

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