



Product Information Sheet

Beta-Amylase 700K

An *Enzyme Supplies* medium temperature β -amylase for the brewing, starch, vinegar industries

INTRODUCTION

Beta-amylase 700K is a medium temperature beta (**exo**)-amylase produced by plant extraction techniques. The enzyme hydrolyses 1,4- α -glucosidic linkages in amylose at the non-reducing end to produce maltose units (Walden conversion from alpha to beta maltose). The enzyme cannot hydrolyse α -1,6 – glucosidic linkages (no glucose is produced).

ENZYME PROPERTIES

Beta-amylase 700K has an effective pH range of 3.0-6.5 (optimum range 5.0-5.6). The enzyme is also active over a broad temperature range from 30°C to 65°C, with an optimum performance at 55-60°C.

TYPICAL CHARACTERISTICS

Activity minimum 700,000 μ /ml (where 1 μ /ml is defined as the amount of enzyme in 1ml enzyme solution to liquefy 1.1% soluble starch / hour at pH 5.5 & 60°C)

Appearance – brown liquid

Bulk density 1.2g/ml

APPLICATION SCOPE

Beta-amylase 700K is widely used for brewing, vinegar & high maltose solution production. Recommended usage conditions are dependent upon saccharification time, pH, temperature, substrate concentration & enzyme dosage.

Recommended usage examples:

1. Manufacture of maltose syrups & beer brewing 0.1-0.3 litres/tonne dry basis. Optimum saccharification 12-30 hours for maltose syrups & 0.5 – 1.0 hours for beer production.

2. Manufacture of high maltose syrup (>70%). Saccharification stage 0.5/1.0 litres/tonne dry basis + Pullulanase 1.5-2.8 litres/tonne (based on 1000 u/ml product). Saccharify for 24 hours
3. Manufacture of super high maltose syrup (>90%) Saccharification stage 0.5/1.0 litres/tonne dry basis + Pullulanase 1.5-2.8 litres/tonne (based on 1000 u/ml product). Saccharify for 24 hours & then add Maltotriose, with a further 24 hours saccharification

PACKAGING

Beta amylase 700K is available in bulk (1000Kg IBC's), and in 25Kg 'non-toxic' plastic barrels.

STORAGE STABILITY

The product is a natural biochemical substance so high temperatures, strong acids & alkalis should be avoided. Avoid exposure to sunlight. When stored at temperatures below 25 deg C, the activity loss will be less than 10% in 6 months. At temperatures below 5 deg C, the activity loss will be less than 10% in 1 year.

SAFETY AND ENZYME HANDLING

Inhalation of aerosols from liquid enzymes should be avoided. Open in a well-ventilated environment. In case of contact with skin/eyes, promptly rinse with water for at least 15 minutes. Clean any spillages with low-pressure water hoses, avoiding the formation of aerosols. For more detailed information, please refer to the Material Safety Data Sheet for this product

Enzyme Supplies Limited
John Eccles House
Robert Robinson Avenue
The Oxford Science Park
Oxford OX4 4GP
U.K.

Tel. +44 (01865) 578557

Mobile: 077178 17509

Fax. +44 (01865) 338100

Mail: sales@enzymesupplies.com