



## Product Literature

### Kem Amylase 300

#### DESCRIPTION:

Medium temperature alpha amylase preparation is produced by submerged fermentation of *Bacillus subtilis* and extraction with modern technique.

#### PRODUCT APPLICATION:

Middle temperature alpha amylase is widely used in desizing of textile, printing and dyeing. It is compatible with wetting agents, non-ionic surfactants, scouring agents and buffering salts to enhance penetration and effective removal of size.

#### CHARACTERISTICS:

Appearance	Liquid
Colour	Amber
Odour	Slight fermentation odour
pH	6 - 7, optimum 6.0
Activity temperature	60 - 90°C,
Solubility	Soluble in water

#### DEFINITION OF UNIT:

1unit of enzyme amylase is defined as the amount of enzyme required to liquefy 1g soluble starch per minute at pH 6.0 and 60 °C.

Optimal pH	6.0 – 6.5
Effective pH	6.0 - 7.0
Optimal temperature	50 - 60
Effective temperature	60°C - 90°C
Dosage	0.5% - 1% o.w.f (depends on the type of size)

#### PROCESSING CONDITIONS:

Optimal pH	6.0 – 6.5
Effective pH	6.0 - 7.0
Optimal temperature	50°C - 60°C
Effective temperature	60°C - 90°C
Dosage	0.5% - 1% o.w.f (depends on the type of size)

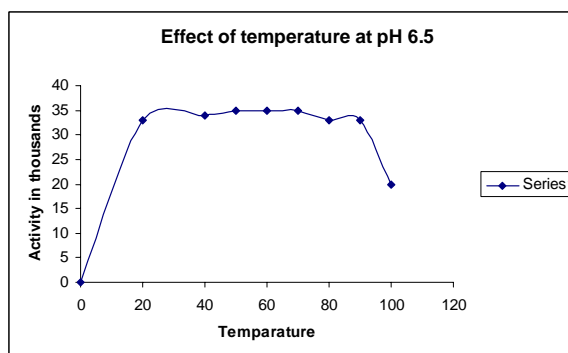


Fig. 1 Effect of temperature on enzyme activity

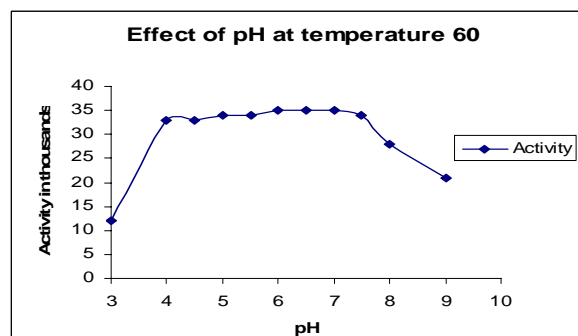


Fig. 2 Effect of pH on enzyme activity





## **Product Literature**

### **Kem Amylase 300**

#### **BENEFITS:**

- For easy and efficient liquefaction of starch
- Suitable for high temperature process.
- Suitable for batch and continuous process
- Eco-friendly and bio-degradable

#### **GENERAL USAGE GUIDELINES:**

##### **Factors influencing liquefaction efficiency:-**

- Temperature and pH of the process
- Processing time
- Type and nature of fabric
- Quantity of size
- Type of desizing technique

#### **INACTIVATION:**

The enzyme can be inactivated by raising the pH above 9 by sodium bicarbonate for 15mins.

#### **TECHNICAL SERVICES:**

Chembond Chemicals Ltd. provides complete technical assistance for conducting on-site trials and demonstration to the customers.

#### **PACKAGING:**

25kg non-toxic plastic barrel.

#### **SHELF LIFE:**

For maximum shelf life it is better to store at low temperatures (environmental temperature below 25°C). The enzyme can be stored upto six months at 25°C or for one year at 5°C, the enzyme activity is not less than 90% of the labeled value.

#### **SAFETY:**

Enzyme preparation belongs to protein, which may induce sensitization and cause allergic type reaction in sensitized individuals. Prolonged contact may cause minor irritation for skin, eyes or mucous membrane of nose, so any direct contiguity with human body should be avoided. If irritation or allergic response for skin or eyes develops, consult a doctor

