



## ALPHA-AMYLASE (*Bacillus licheniformis*) (Lot 100301a)

E-BLAAM

07/11

### PROPERTIES

#### 1. ELECTROPHORETIC PURITY

- Single major band on Isoelectric focusing (pI = 7.4)
- Single major band on SDS-gel electrophoresis (MW = 58,000)

#### 2. SPECIFIC ACTIVITY AND LEVEL OF OTHER ACTIVITIES

SUBSTRATE	SPECIFIC ACTIVITY (U/mg Protein)
$\alpha$ -Amylase (Ceralpha Reagent at pH 6.0)	54.0
Amyloglucosidase ( <i>p</i> -Nitrophenyl $\beta$ -maltoside)	undetectable
Cellulase (CM-Cellulose 4M)	undetectable
$\beta$ -Mannanase (carob galactomannan)	undetectable

**One Unit** of  $\alpha$ -amylase is the amount of enzyme required to release one  $\mu$ mole of *p*-nitrophenol from blocked *p*-nitrophenyl-maltoheptaoside per minute (in the presence of excess  $\alpha$ -glucosidase) at pH 6.0 and 40°C.

#### 3. PHYSICOCHEMICAL PROPERTIES

pH Optima	6.0-6.5
pH Stability	4.5-8.0
Temperature Optima	75°C
Temperature Stability	< 80°C

#### 4. STORAGE CONDITIONS

The enzyme is supplied in vials of **40 ml** as a stabilised solution and should be stored at 4°C.

The enzyme is supplied at a concentration of 3000 U/ml on Ceralpha Reagent at pH 6.0 and 40°C (i.e. approximately 10,000 U/ml on soluble starch under the same assay conditions).

This enzyme is recommended for use in **Total Dietary Fibre** analytical procedures and the **Megazyme Total Starch test** method. The preparation is effectively devoid of cellulase and is free of catalase.