Bioferm LC – Application Sheet

PRODUCT:

Product Name & Code: Bioferm LC (25 kg) - 20688719
Updated: June 2025

DESCRIPTION:

- Bioferm™ is a fungal endo-amylase from *Aspergillus oryzae*. It can be used in mash (or in fermentation) to reduce starch to low molecular weight dextrins and maltose. Alpha amylase hydrolyses the alpha 1,4 glycosidic linkages in amylose and amylopectin, resulting in the production of dextrins and fermentable sugars.
- This product is made from a natural raw material and as such may be subject to some batch-to-batch colour and/or odour variation, but these variations are not an indicator of enzyme activity and do not impact on product performance.

KEY BENEFITS:

- Improves wort fermentability & increased levels of maltose
  - Bioferm LC breaks down complex starch molecules into simpler, fermentable sugars, especially maltose.
  - This leads to a higher degree of attenuation (more sugar converted to alcohol), resulting in higher efficiency and yield.
- Eliminates starch hazes.
  - Bioferm LC helps to eliminate residual starch in the wort and finished beer, preventing starch haze and improving beer clarity. By ensuring complete starch conversion, it contributes to the overall stability and shelf life of the beer.
- Enables use of alternative raw materials
  - With the help of Bioferm LC, there is more opportunity to utilize local, cheaper and more sustainable raw materials.

APPLICATION:

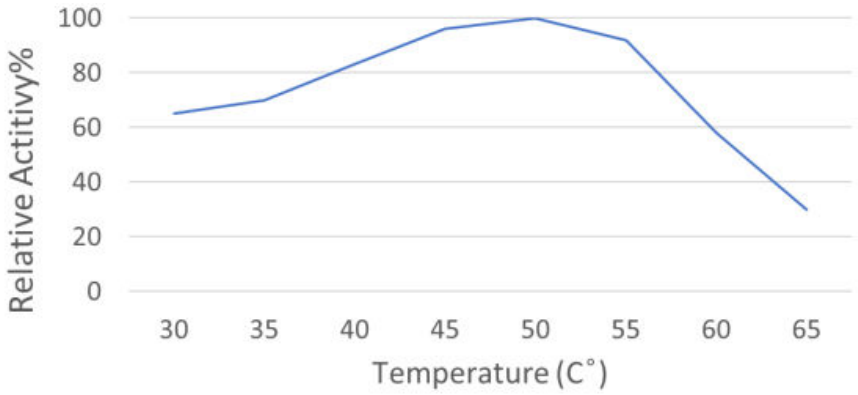
Bioferm LC can be applied at brewhouse, fermentation & maturation. Bioferm LC can be dosed directly into the mash during conversion to increase wort fermentability. Bioferm LC can also be added during fermentation to further increase beer or wash fermentability and reduce the potential of starch hazes. If used during the typical brewing production process Bioferm LC is deactivated during wort boiling. If Bioferm LC is added at fermentation during the production of beer ensure deactivation of Bioferm LC by pasteurisation.

DOSAGE:

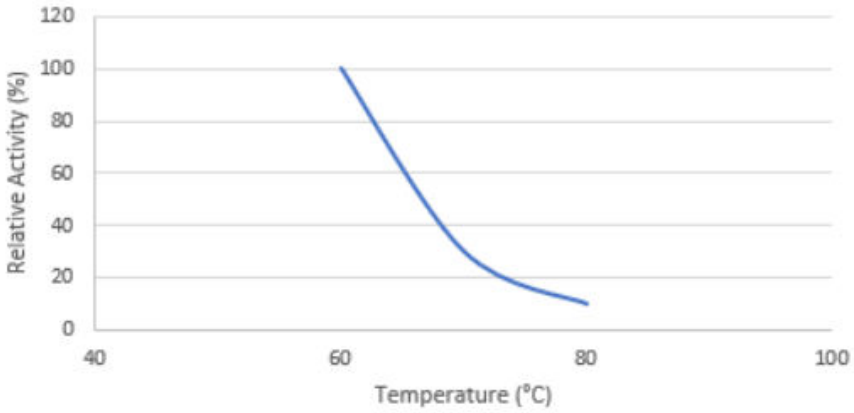
- For mashing application: Bioferm LC can be dosed at 150-1500g/tonne of grist.
- For Fermentation/ Maturation application: Bioferm LC can be dosed at 0.7 to 3 g per hL or 0.85 ml to 3.6 ml/hL.
- Dose recommendations are guidelines, for very high levels of attenuation higher dose rates may be needed.
- For further dosage recommendations contact your local technical support team.

OPTIMAL PROCESS CONDITIONS:

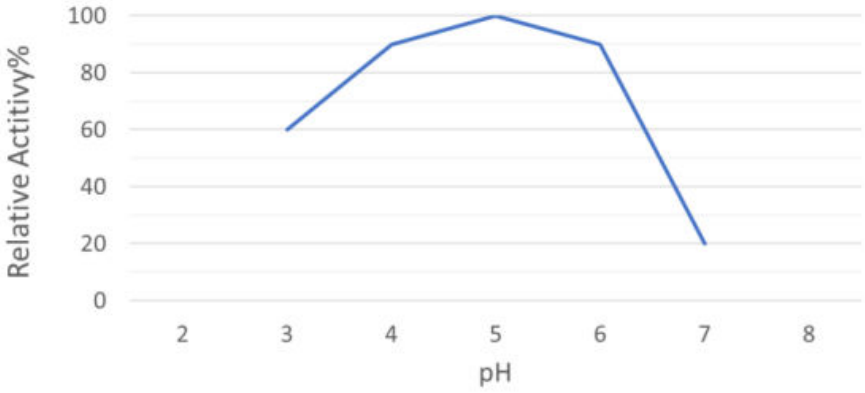
Temperature Profile: Bioferm LC has a temperature optimum of 50°C.



Temperature Stability: Bioferm LC is rapidly inactivated above 60°C.



pH Profile: Bioferm LC shows an optimal ph of 4.5 – 5.5.



GMO STATUS:

Bioferm LC is not a GMO. The production strain is not present in the final enzyme product. The production strain has not been improved by means of modern biotechnology.

PACKAGING & STORAGE:

Bioferm LC is available in 25 Kg plastic drums and, when stored at 10°C or below, will maintain at least 95% activity for a minimum of 24 months. After this time period, reassay is advisable.

HANDLING PRECAUTIONS:

Enzymes may cause skin or eye irritation and inhalation of aerosol can result in sensitisation of susceptible individuals. Standard handling procedures should be followed to prevent direct contact with the product or inhalation of aerosol. A separate Material Safety Data Sheet (MSDS) is available on request.