

GFzyme-TL 100™

Lipase

GFzyme-TL 100™ is a lipase (TLL) from *Thermomyces lanuginosus* and it is produced by a submerged fermentation of *Aspergillus* sp.

In opposition to most enzymes, lipases exhibit a wide specificity, recognizing very different substrates. This permits to use a determined lipases as a catalyst for very different reactions, and makes that lipases may be used in pharmaceuticals and drugs production, in energy (biodiesel) or food manufacture, etc.

TLL enzyme is a basophilic and noticeably thermostable enzyme. Initially oriented toward the food industry, TLL has been used in many different industrial areas such as modification of fats and oils, production of biodiesel, production of fine chemicals (mainly in enatio/regioselective or specific processes), etc.

◆ Specification

- Appearance : dark brown liquid
- Activity : 100,000 unit/g
- pH : 6.0 ~ 7.0
- Specific gravity : 1.10 ~ 1.20
- Expiration date : 6 months from manufacturing date

◆ Recommendation of operational condition

- Stable pH range: pH 6.0 ~ 11.0
- Optimum pH: pH 9.0
- Stable temperature range : 30~55°C
- Optimum temperature : 45°C

◆ Applications

- Food : oil and fat hydrolysis, modification of lipid, etc.
- Feed : enhance digestion of oil and fat
- Fine chemical : organic synthesis, chiral compound synthesis
- Laundry detergent : removal of greasy stains
- Pulp and paper : pitch control
- Leather : removal of oil

◆ Package and Storage

- Package unit: 20 kg drum and 1 ton bulk
- Storage: Enzymes gradually lose activity over time depending on storage temperature and humidity. Cool and dry conditions are recommended. At lower temperatures the storage stability is increased. Extended storage and/or adverse conditions, including higher temperatures or high humidity, may lead to a higher dosage requirement. The enzyme preparations should not be left in direct sunlight for extended periods. Liquid preparations should not be frozen.