

GFzyme-Katalase™ S 350L

Catalase

Catalase is an enzyme that presents in the cells of plants, animals and aerobic (oxygen requiring) bacteria. It promotes the conversion of hydrogen peroxide, a powerful and harmful oxidizing agent, into water and molecular oxygen.

It is widely used for removal of H₂O₂ in textile industry, semiconductor and HPPO factory. It saves time and energy and is environmental-friendly.

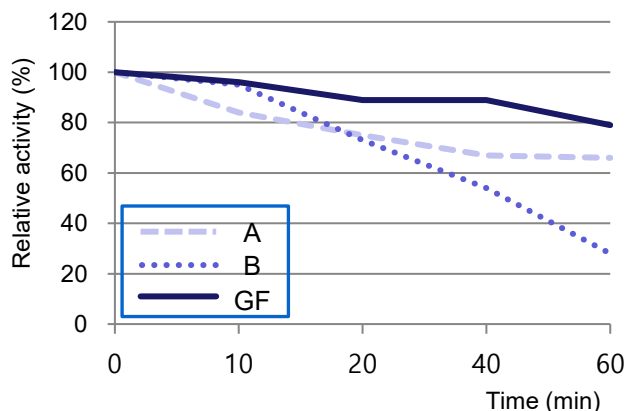


◆ Benefits for the wastewater treatment industry

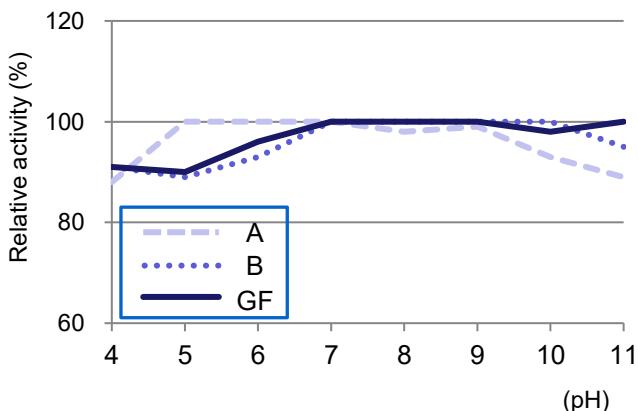
- Removal of residual hydrogen peroxide (H₂O₂)
- Reduction of water consumption
- Reduction of energy and time consumption
- Eco-friendly and bio-degradable

◆ Stability test for temperature and pH

Heat Stability at 70°C



pH Stability (after 1 hour)



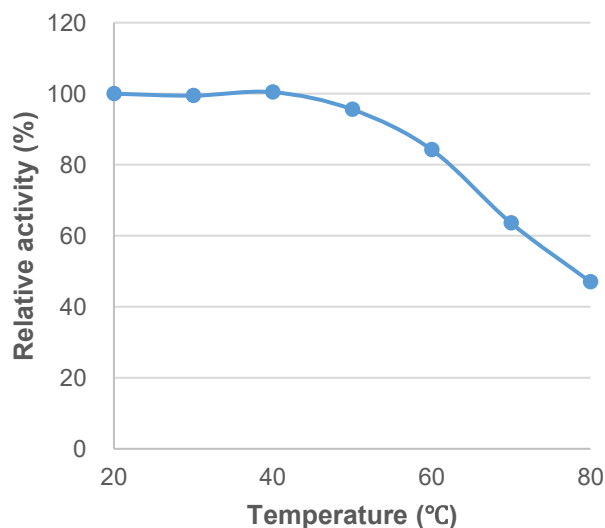
◆ Characteristics

- Source: Thermostable Fungi
- Activity: > 350,000 unit/ml (at pH 7.0)
- Appearance: brown to dark brown liquid
- pH: 5.0 (± 1.0)

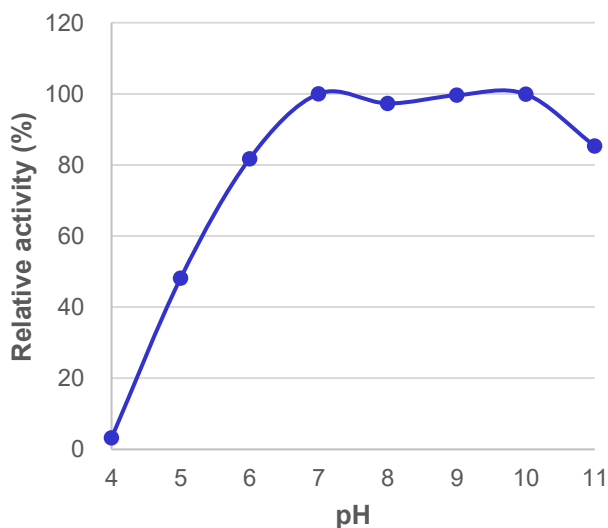
◆ Recommendation of operational condition

- Stable pH range: pH 5.0 ~ 11.0
- Optimum pH: pH 6.0 ~ 8.0
- Temperature stability: stable at 70°C for one hour
- Optimum temperature: 35~55°C
- Process time: 5~20 minutes

◆ Optimum temperature

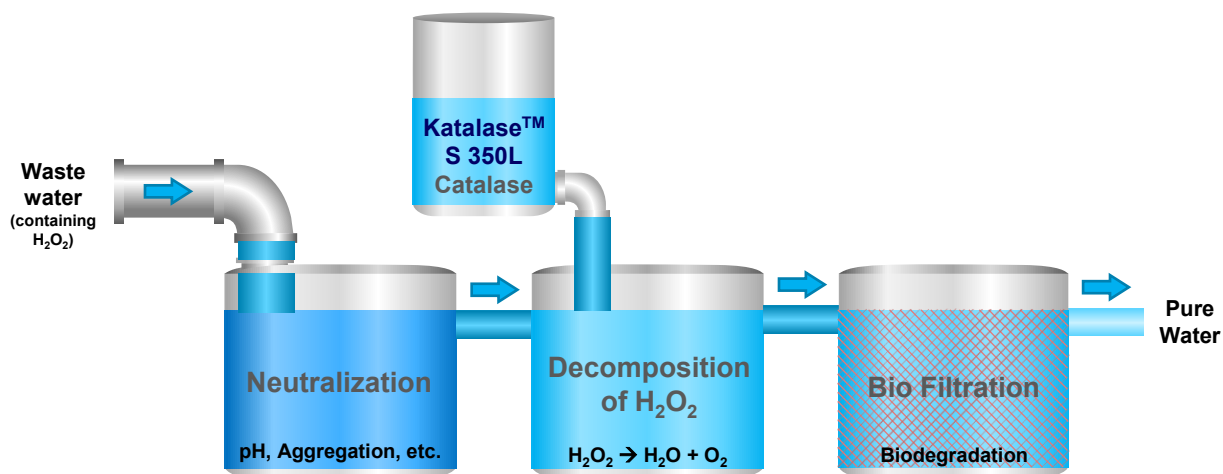


◆ Optimum pH



◆ Guideline for the wastewater treatment

- Fill the bath with Katalase™ S 350L instead of chemical catalyst
- After neutralizing waste water, put Katalase™ S 350L in the bath containing wastewater
- After decomposition of hydrogen peroxide(H_2O_2), the catalase in wastewater is bio-degraded by microorganisms in bio-filter



◆ Benefits of enzyme process

- Applicable to existing facility without additional equipment
- No additional treatment required for chemical catalysts (enzyme is bio-degraded by microorganism in existing bio-filter)

◆ Package and Storage

- Package unit: 200 kg drum
- Storage: avoid a direct ray of light and keep cool

◆ Expiry date

- Katalase™ S 350L : Best before 12 months from manufacture