

AmylaZ Zymplate®



AmylaZ Zymplate® is a 96-well plate containing amylase activity sensor made from potato amylopectin. AmylaZ Zymplate® was designed by ZYMOPTIQ® to enable accurate and reproducible measurements of amylase-containing samples.

Assay principle & compatibility

AmylaZ Zymplate® integrates advanced enzymatic sensors within a 96-well microplate format. AmylaZ Zymplate® is fully compatible with the Zymocube® reader and, coupled with the intuitive Zymosoft® software, it offers automated data acquisition, analysis, and result calculation for high-throughput enzymatic testing and final product validation.

Application

AmylaZ Zymplate® is an ideal solution for measuring amylase activity across a wide range of industries, including milling, baking, and other food sectors. Its high sensitivity allows reliable detection of residual enzymatic activity in diverse products such as baked goods, egg-based products, jams, and syrups. This makes it a valuable tool for R&D, process control, and final product validation.

Technical specification

Versatility for any conditions

- AmylaZ enables high-throughput amylase activity testing.
- Designed for robustness and flexibility, AmylaZ performs under a wide range of conditions (pH 3.0–9.0, 4–80°C) and accepts colored or particle-rich samples, without centrifugation or filtration, saving time and simplifying workflows.
- Reusable up to 4 times within a month and stable for 12 months, it is both efficient and economical.

Storage & Expiration date

Store at 10–25°C in its original packaging (blister under vacuum), in a clean, dry place away from direct sunlight. The expiration date is on the label. Use beyond this date may affect performance.

Examples of compatible enzymes

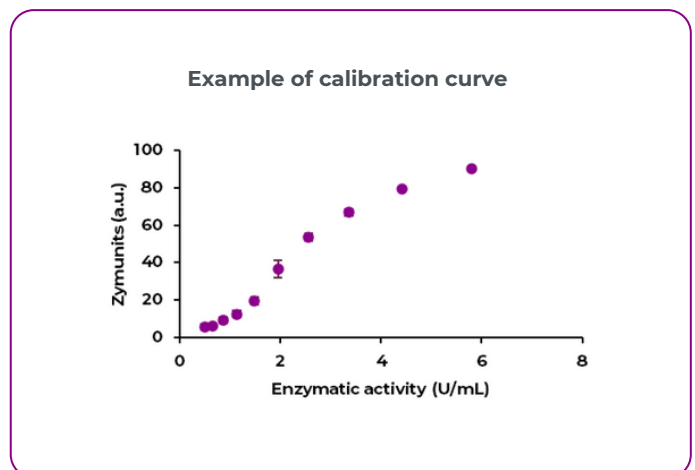
Amylase, glucoamylase, α -amylase, β -amylase, exoamylase, endoamylase, maltogenic amylase, isoamylase.

Metrological performance

Each batch of AmylaZ Zymplate® is rigorously tested for accuracy.

The mid-range activity, defined as the enzyme concentration needed to produce a signal of 50 zu, is experimentally determined using an α -amylase from *Aspergillus oryzae* (Megazyme, E-ANAAM) incubated for 45 min at 40°C in sodium-acetate buffer 25 mM containing 0.5 g/L BSA, pH 5.0 (mid-range activity is typically between 2.1–4.2 U/mL).

Performance is evaluated in terms of relative standard deviation (RSD) and relative bias to the theoretical value. Both RSD and bias must be below 10%, ensuring consistent and reliable results.



Zymplate® range

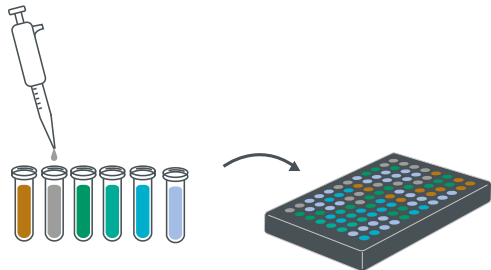
96 measurements in less than 2 hours with a streamlined 4-step protocol

Ready-to-use 96-well plate, with substrate included: Zymplate®.

Use raw samples, non-purified extracts or enzymatic cocktails: no sample preparation is required.

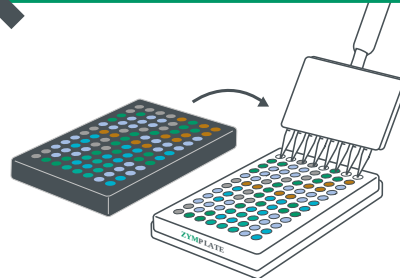
Samples that can be used: liquid, powder, see-through, colored, cloudy, unfiltered.

1 Sample and transfer-plate preparation



- Prepare your samples with enzymes (standard and samples) in buffer.
- Use the buffer or matrix without enzyme as negative control.
- Prepare your transfer plate (96 -well) according to your chosen layout.

2 Reaction start and incubation



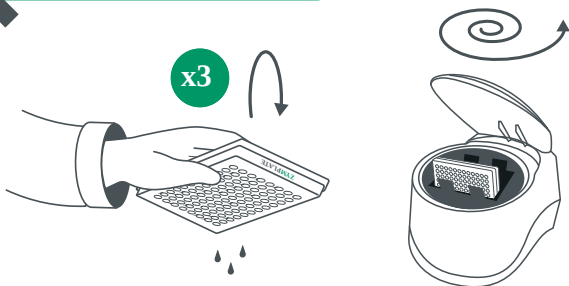
4 to 80°C*

from 30 min

- Take the Zymplate® out of its package.
- Transfer your enzyme solutions to the Zymplate® using a multi-channel pipette.
- Seal the plate and incubate in the desired conditions.

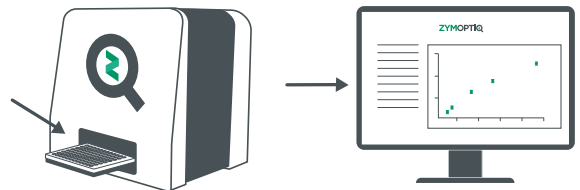
*see sensor specification

3 Reaction end and drying



- Take out the plate, remove the seal and empty it.
- Rinse thoroughly with de-ionized water (thrice).
- Dry by centrifuging the plate upside down.

4 Reading and results



- Scan the plate QR-code and image it with the Zymocube®.
- All 96 positions are read in 15 minutes.
- Get your results!



Recycling-waste disposal At Zymoptiq®, we are committed to sustainability. Zymplate® components are recyclable and we actively support responsible recycling by offering to manage the process for you. Otherwise, please dispose of Zymplate® in appropriate bins following local regulations.

Discover the full range of Zymplate® to maximize efficiency

Explore our complete Zymplate® range:

- **AmylaZ Zymplate®**: Amylase activity
- **GlucanaZ Zymplate®**: B - Glucanase activity
- **PhytaZ Zymplate®**: Phytase activity
- **ProteaZ Zymplate®**: Protease activity
- **XylanaZ HA Zymplate®**: Xylanase (High Activity)
- **XylanaZ VLA Zymplate®**: Xylanase (Very Low Activity)

