

## Mayonnaise: Optimise formulation cost/ Elevate perceived value

### How we enabled a cost-effective, egg-free mayonnaise without compromising texture

#### Opportunity

Demand for vegan, egg-free mayonnaise is growing, with consumers expecting the same texture, stability, and sensory experience as traditional egg-based products. For manufacturers, this creates a dual challenge: meeting that expectation while reducing recipe costs.

#### Customer Challenge

A customer needed to remove egg yolk from their mayonnaise formulation - a significant technical challenge, as egg provides emulsification, structure through protein gel network formation, and contributes to flavour and colour. Replacing it affects emulsion stability, viscosity, texture, and appearance throughout the microstructure. The goal was clear: a stable, appealing vegan mayonnaise with sensory performance comparable to egg-based references - and at an advantaged cost.

#### Solution

Applying Tate & Lyle Sensation™ insights, we developed a targeted ingredient system that recreates the functional role of egg yolk in the emulsion. STAMIST® Instant 364 NG emulsifying starch stabilizes the oil and water phases, preventing fat separation and delivering a smooth, uniform texture. Combined with RESISTAMYL® cook-up starch and KELTROL® Xanthan Gum to build structure, stability, and consistent mouthfeel, the system delivers sensory performance that matches egg-based references – without the egg.

#### Differentiation

The customer chose Tate & Lyle because we went beyond ingredient selection. By connecting sensory science with deep formulation expertise, we delivered an egg-free solution proven to match the eating experience of traditional mayonnaise while reducing recipe costs by up to 25%.

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## The value you get

TATE & LYLE

### Egg usage

From:  
8%

To:  
0%

### Consumer acceptance

Allows for "egg-free" or "vegan" positioning



### Expected taste

Texture liking & Purchase Intent at par with the egg-containing reference<sup>1</sup> Maintained key attributes such as smoothness, thickness, spreadability



### Lower costs of Reformulation

Speed and accuracy in development with Tate & Lyle Sensation



1- Tate & Lyle Sensation 2025 – CLT; Apr 2025, n=205, UK & Germany

2- CIU includes oil, egg and T&L solutions

Additional cost savings:  
Egg reduction

- 25%<sup>2</sup>

