

Biofine™ Clear improves beer clarification by instant flocculation of yeast and undesired particulate matter such as yeast and proteins

## How does Biofine™ Clear work?

Biofine™ Clear is a colloidal solution of silicon dioxide in water, and has an organic suitability status.

Biofine™ Clear forms large aggregates with the negatively charged yeast cells, thereby increasing their rate of sedimentation. It also removes haze forming 'sub-micron' protein particles. This results in longer filtration runs and improved colloidal stability of the beer.

Biofine™ Clear is classified as a 'process aid' because it is completely removed from the beer under normal processing conditions.

Kerry can advise on exact dose rate for your application based on type of beer, raw materials, yeast strain, process and type of filter.



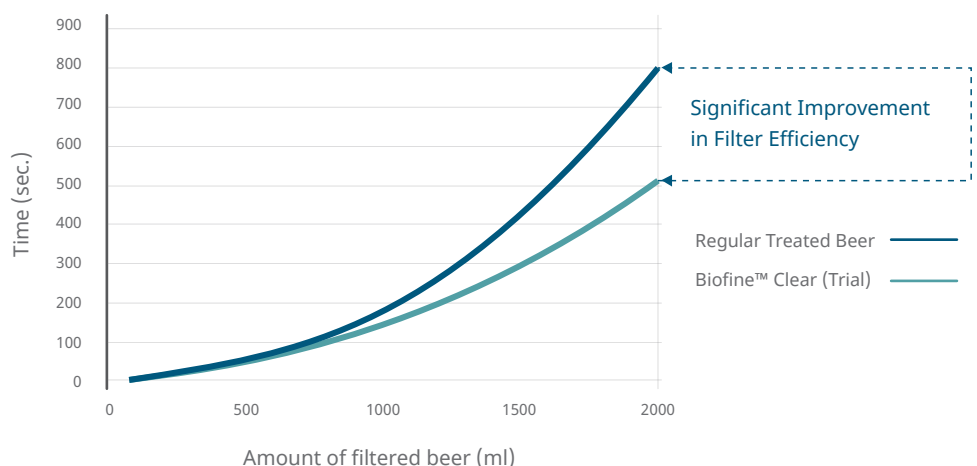
## BioFine™ Clear Benefits:

- Reduces storage/maturation time
- Increases filter throughput and efficiency and reduces filter aid consumption
- Reduces beer loss
- Reduces CIP
- No impact on beer flavour
- No adverse effect on beer foam

**NON-GMO, KOSHER, HALAL,  
ORGANIC SUITABILITY  
STATUS, SUITABLE FOR  
VEGETARIANS AND VEGANS**



## Biofine™ Clear Improves Filtration Efficiency - Lab Trial



# Better for the Planet

Biofine™ Clear can deliver an 8% energy savings and 17% reduction in CO<sub>2</sub> emissions equivalent to ~1,191 mtCO<sub>2</sub>e per annum for a 1Mhl brewery.

For further information download our technical paper:  
<https://www.kerry.com/insights/resources/brewing-sustainably>

# Better for your Bottom Line

Commercial trial data confirms Biofine™ Clear can deliver an estimated saving of €0.19/hl as summarised in the table below.

## Cost-saving impact of yeast flocculant utilisation (commercial trial)

	Biofine™ Clear (g/hl)	Haze (EBC) after 36 hours	Filter aid (g/hl)	Filter run (hl)	Savings (€/1000 hl)
Trial	25	2.9	40	10,500	200 (est.)
Control	-	14.8	135	5,100	



## Kerry has been providing brewing solutions for over 50 years, a business founded by a master brewer.

Our enzymologists and many of our brewing researchers, are trained as master brewers because we know that to develop the optimum solution, you have to understand all aspects of the brewing process.

We work with customers in over 80 countries to develop solutions that meet their most demanding challenges.

