

KERRY

Whirlfloc™ is a natural solution for wort clarification in brewing

Whirlfloc™ is a natural carrageenan extracted from red marine algae (*Rhodophyceae*) and manufactured exclusively for use as a wort fining agent.

Whirlfloc™ improves hot break trub compaction. The primary effect of Whirlfloc™ can be seen in the cold break, resulting in bright clear wort when it has cooled. Cold break formation is temperature dependent, only forming in significant quantities below 20-30 °C.

It has been conclusively demonstrated that it is better to sample the wort post boil on the cold side of the chiller, in the middle of the run, to assess the performance of Whirlfloc™. These samples should be observed (clarity and sediment volume) after a period of 12-16 hours for clarity and sediment.

Whirlfloc™ is classified as a 'process aid' because it is completely removed from the beer under normal processing conditions. It is available in granular, tablet and powder form.

Whirlfloc™ Benefits:

- Improves trub compaction
- Increases extract yield/reduces yield losses
- Reduces wort losses with brighter/cleaner worts
- Increases beer volume in maturation tank
- Increases filter run length and reduces filter aid consumption - both by up to 50%
- Reduces CIP - up to 10%
- Reduces filter pressure

**NATURAL, NON-GMO, KOSHER,
HALAL, SUITABLE FOR VEGETARIANS
AND VEGANS**



Better for the Planet

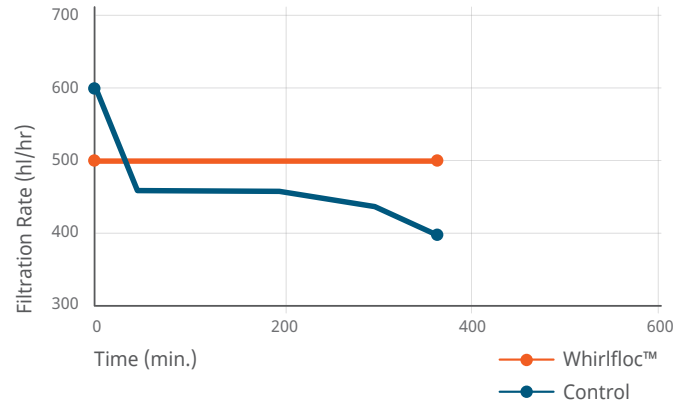
Whirlfloc™ can deliver a 1% energy savings and 3% reduction in CO₂ emissions equivalent to ~172 mtCO₂e per annum based on a 1Mhl brewery.

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

Better for your Bottom Line

- Use of Whirlfloc™ has been shown to deliver cost savings in the brewing process, of at least €0.09/hl final gravity beer.
- Higher throughput will help avoid potential capex - doubling filter run throughput means you can get more volume from your existing plant.

Beer Filter Optimisation



Consistent filtration rate maintained with use of Whirlfloc™

Process Optimisation - Customer Case Study

Challenge:

A leading brewery wanted to optimise their process and achieve cost-saving targets without impacting beer quality.

Solution:

Whirlfloc™ was added to improve wort and beer clarity, and reduce beer filtration run time.

Result:

- 50% increase in filter run length
- Improved wort and beer clarity
- Improved yeast vitality and final beer clarity
- Minimum savings of €160/'000 hl
- Improved sustainability

As a result of the performance of Whirlfloc™ the brewer has now begun to roll-out the use of Whirlfloc™ across all their breweries globally, to scale operational efficiencies.



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.

