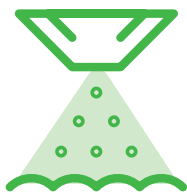


WORT CLARIFICATION WITH PROTAFLOC



IMPROVE THE FILTRATION RATE OF YOUR BEER UP TO 106%

WHAT IS PROTAFLOC?

Protafloc is an easy-to-use, consistent copper fining from Murphy & Son designed specifically for wort clarification in the brewery.

Protafloc dissolves easily into boiling wort and complexes with the undesirable protein fraction known as the "cold break", once the wort is cooled and in the fermenter.

As it quickly settles out, it is kept out of the yeast and beer.

FASTER CLARIFICATION

Protafloc clarifies wort making compact protein sediments in the fermenter. As the size of remaining particles is increased and their number reduced, it is far easier to filter and centrifuge, saving time and money.

HEALTHY YEAST

Keep your pitching yeast pure and healthy by settling out the cold break in the bottom of the cone before harvesting.

HOW DOES IT WORK?

Protafloc contains large, negatively charged polysaccharides called kappa-carrageenan which bind to the positively charged protein in the cold break as it forms.

The resulting particles are relatively large and sediment and fall to the bottom of the fermenting vessel. Addition is simple and easy made ten minutes before the end of the boil.

TOP TIP

Protafloc Tablets dissolve rapidly and can also be added to the whirlpool during filling.

If this is your first time using Protafloc, contact us about performing a brewery trial or purchasing a copper fining optimisation kit. Head to our website murphyandson.co.uk or to speak to our technical support team, email techsupport@murphyandson.co.uk



BENEFITS

- Improved fermentation.
- Natural Seaweed extract.
- Great value for small additions – extremely low dose rate.
- Brighter wort and beer.
- Cleaner, healthier yeast.
- Faster filtration and centrifuge.

APPLICATION

HOW MUCH TO ADD

0.75 - 4.8 g/hl
1.25-7.9 g/bbl [UK]

WHEN TO USE

Added to boiling wort in kettle,
10–15 minutes from end of boil.

ACTIVITY RANGE

pH: 5.0–5.6
Temperature: <21°C

STORAGE

TEMPERATURE

1–37°C
Do not allow to freeze.

LOCATION

Cool, sealed, and away
from sunlight.

SHELF LIFE

At the recommended storage
temperature, 24 months from
the date of manufacture.

OPTIMISATION RESULTS

The results can be seen in the image opposite, from left to right:

PROTAFLOC 0

Control.

PROTAFLOC 5 PPM

Slightly hazy wort (under fined).

PROTAFLOC 20 PPM

Bright clear wort, compact sediment – optimal addition rate.

PROTAFLOC 40 PPM

Clear wort, very loose sediment (over fined).

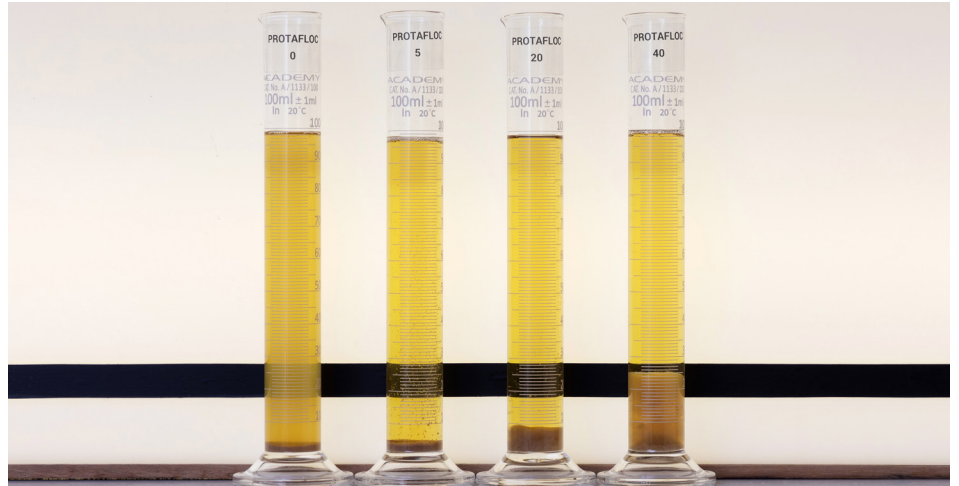
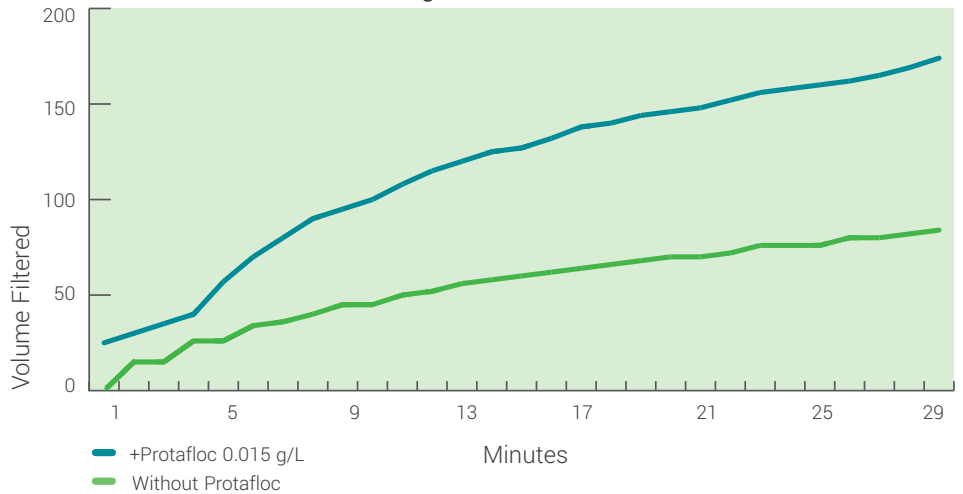


Fig.1: Filtration rate of two beers (Pale Ale) brewed according to 'best-practice' standards. Protafloc granules (15ppm) were added to the wort in the kettle and compared to a control beer (without Protafloc). Beer filtration rate was significantly improved when Protafloc was added to the wort in the kettle.

Table 1: Lower haze formation and reduced levels of β -Glucan in beers brewed with addition of Protafloc granules compared to the control (without Protafloc).

Removal of beta glucan was enhanced by addition of carrageenan copper finings and could thus improve filtration performance.

Fig 1: Filtration Rates



	O.G.	P.G.	ABV (%w/w)	Haze (EBC)	β -Glucan (mg/L)
+Protafloc	1.063	1.015	6.4	2.9	11.8
Without Protafloc	1.063	1.015	6.3	10.8	35.7

WANT TO KNOW MORE? GET IN TOUCH

If you would like to know more about what we do, head to our website murphyandson.co.uk or to speak to our technical support team, email techsupport@murphyandson.co.uk



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