

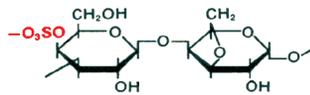
COMPAC CG (CCG 311)

Compac CG is the semi-refined, granulated form of the seaweed species *Euचेuma cottonii*.

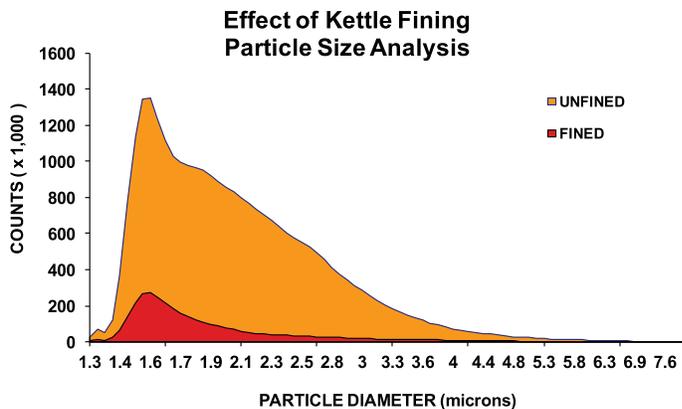


PRINCIPLE

The species *Euचेuma cottonii* is rich in the kappa isomer of carrageenan.



When added to boiling wort, kappa carrageenan reacts strongly with soluble proteins, notably the proline-rich haze precursor fraction. When the wort is cooled the carrageenan-protein complex becomes unstable and precipitates out of solution. The clear wort that results produces a beer with enhanced processing characteristics.



BENEFITS

- Improved hot break compaction in the whirlpool.
- Improved yeast vitality during fermentation.
- Improved filtration – longer filter runs.
- Improved beer haze and colloidal stability.



QUICK NOTES

BENEFITS

- Improved hot break compaction
- Improved filtration
- Improved yeast vitality

TREATMENT RATES

1-3 g/hl

APPLICATION

Added to kettle 10 minutes from end of boil

REGULATORY

USA

Approved by Food and Drug Administration under 21CFR Section 172.620

UK and EEC

Authorized under European Parliament and Council Directive 95/2/EC. E407a

CONTACT US

For more information, please visit us at www.lallemandbrewing.com

For any questions, you can also reach us at abvickers@lallemand.com



TREATMENT RATES

Compac CG is typically added to wort at rates in the range 1–3g/hl. Variations in grist make-up, malt quality, brewing liquor, and plant operation all have a major impact on the carrageenan requirement. The correct addition rate is best identified by a simple optimization test (see later).



IDENTIFICATION OF OPTIMUM ADDITION RATE

Prepare a solution of Compac CG in hot water. Example: add 0.5 g Compac CG to 500ml boiling water. Stir for 10 minutes.

Add the solution to a series of clear glass containers to give a range of treatment rates. Example: to 100ml containers add 0, 1, 2, 3, 4 and 5 ml of solution. This will give an addition rate range of 0 to 5g/hl.

Sample wort from the kettle at the end of the boiling period and whilst still hot add to the pre-dosed bottles. Mix well, seal, and allow to stand for an hour. Cool in cold water and allow to stand overnight.

Assess results by observing the clarity of the wort and the sediment volume. The optimum result is obtained by identifying the addition rate at which a combination of clarity and low sediment volume is found. Interpretation of the results can be facilitated by measuring the haze or turbidity of the wort.



IN PRACTICE

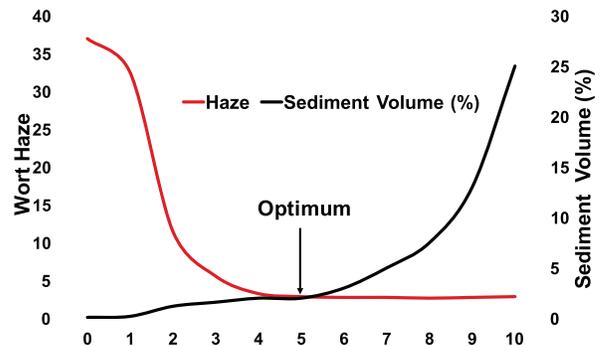
The effectiveness of Compac CG should be regularly monitored in the brewhouse. We recommend taking a sample of wort after chilling into a sterile container and assessing the clarity after allowing to settle for several hours. Addition rates may need to be adjusted to compensate for changes in wort composition, notably pH variation.



APPLICATION

Compac CG is best added to the kettle 10 minutes before the end of the boiling period. Addition can be made directly into the kettle or via automatic addition systems, either as powder or liquid slurry.

Typical Wort Clarification Profile



BREWING PRACTICE

Carrageenan is well established in the brewing industry as an important processing aid. Originally, unprocessed seaweed of the species *Chondrus crispus* (Irish Moss) was used to good effect.

As interest in the food industry for high kappa isomer species such as *Eucheuma cottonii* increased, so did availability and quality. Today, most carrageenan used in brewing is of this species. Its role as the most cost effective method of wort clarification is undisputed.