



FININGS

KOPPAKLEER GRANUELS

TECHNICAL DATA SHEET

Description

Koppakleer Granules are a refined grade carrageenan product which is added to the wort in the kettle or whirlpool to enhance protein removal as the wort cools.

Benefits

- Brilliant clarity of your cold wort
- Reduced costs of beer processing– better filtration and fining performance
- Reduced energy use
- Easy to use
- Low dose rate
- Enhances beer foam stability
- Removes proteinaceous material without affecting beer foam

Principle

Koppakleer is a refined carrageenan which is derived from seaweed. Carrageenan in solution is negatively charged, owing to the sulphate groups along the polysaccharide backbone. It is these charged sites which interact with wort proteins.

In solution at temperatures above 65°C, the carrageenan has a random coil structure. As the wort cools the carrageenan takes a much more compact and ordered helical structure which is thought to drag the protein particles together to form aggregates. The aggregates, having a larger particle radius, settle faster.

Wort proteins react with carrageenan as the wort cools and settle as a cold break during fermentation to be removed along with the excess yeast.

PRODUCT CODE

KKG

COMMODITY CODE

13023900

PACKAGING (kg)

2 & 15 kg

STORAGE

Keep in original container.
Keep containers sealed when not in use.

Temperature

Recommended storage temperature is 10°C - 15°C.

Maximum storage temperature is 30°C.

Location

Store in cool conditions away from direct sunlight.

Shelf Life

At the recommended storage conditions, 3 years from the date of manufacture.

Application and Rates of Use

Koppakleer Granules should be added to the kettle five minutes prior to the end of the boil or directly the whirlpool. This allows the granules to dissolve and disperse the carrageenan into the wort. Should Koppakleer be added early in the boil, then degradation of the polymer may occur and product efficiency is lost. The reaction between wort proteins and carrageenan is pH dependant and occurs at an optimum pH of 5.3. Below pH 4.4, the reaction does not occur and little benefit is gained from using Kettle finings.

Rates of use:

Typical rates vary from a range of 0.75g to 4.8g per hL, but a kettle finings optimisation should be carried out to determine this more accurately. Rates of use should be checked when you change supplier or move to new seasons malt. When the dose rate increases, the clarity improves, but the level of sediment increases. Over-fining will give rise to beer losses in fermentation vessel.

Guideline for use

- Check that the product is within its shelf life before use
- Ensure that the product is dispersed into the wort and does not stick to the walls of the kettle or be drawn up the stack with the steam
- Carry out optimisation trials to determine the correct rate of use
- Read the Safety Data Sheet prior to use
- DO NOT open the kettle to make the addition unless the boil has been temporarily turned off
- DO NOT add the product significantly earlier or later than the recommended time

TECHNICAL SUPPORT

+44 (0) 115 978 5494 | techsupport@murphyandson.co.uk

REGULATORY COMPLIANCE INFORMATION

Refer to the '**Product Specification Sheet**' or contact us on:
+44 (0) 115 978 5494 | compliance@murphyandson.co.uk

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	Product code: KKG
For Health & Safety Information refer to the Safety Data Sheet.	Doc Ref: TDS043
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