



# FININGS KOPPAKLEER TABLETS

## TECHNICAL DATA SHEET

### Description

Koppakleer Tablets 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
- 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

KKT

#### COMMODITY CODE

13023900

#### PACKAGING (kg)

2 & 25 kg

#### TABLET WEIGHT(g)

5 g

#### STORAGE

Keep in original container.

#### Temperature

Recommended storage temperature is 5°C - 14°C.

Minimum storage temperature 1°C.

Do not allow the product to freeze.

#### Location

Store in cool conditions away from direct sunlight.

#### Shelf Life

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

## Application and Rates of Use

Koppakleer Tablets should be added to the kettle five minutes prior to the end of the boil or to the whirlpool if this is not possible. This allows the tablet 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 little benefit is gained from using Kettle finings.

### Rates of use:

Typical rates vary from a range of 0.5-1.5 tablets 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
- Carry out optimisation trials to determine the correct rate of 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](mailto: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](mailto:compliance@murphyandson.co.uk)

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