

KOPPAKLEER TABLETS

1 DESCRIPTION

The product is a tabletised kettle finings product that can be added directly to wort.

- ◆ A traditional and natural product which removes substantial quantities of haze forming material without affecting head retention
- ◆ Prolongs shelf life in small pack beers
- ◆ Produces brighter worts, reducing the amount of finings required later
- ◆ Especially suited for worts that are difficult to fine bright
- ◆ Tablets can be counted rather than weighed when small amounts are used

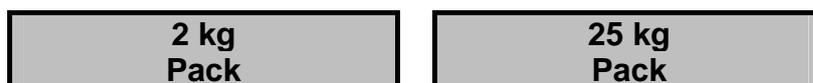
2 STORAGE AND SHELF LIFE

- Store in cool conditions, away from direct sunlight
- Keep containers sealed when not in use

- Maximum storage temperature - 30°C
- Recommended storage temperature - 10 to 15°C
- Minimum storage temperature - Not applicable

- The shelf life at the recommended storage temperature is 2 years from date of manufacture

3 PACKAGING



4 USING THE PRODUCT

(a) How much of the product to add

All types of beer will benefit from the use of kettle finings. The exact rate for a given wort will vary according to the brewery, the recipe and the types of malt and adjuncts used. The following table gives an indication of typical rates, but a kettle finings optimisation should be carried out to determine this more accurately. It is better to add a little too much rather than too little; beer quality will not be compromised; the worse that can happen is higher beer losses in FV:-

KOPPAKLEER TABLETS	ppm	g/hl	g/barrel
Weaker beers, or those using syrups	15	1.5	2.4
Standard beers, all malt grists	20	2	3.2
Stronger or high nitrogen adjunct beers	25	2.5	4.0

(b) Where to add the product

The product should be added directly to the kettle towards the end of the wort boil. As it is a refined grade of carrageenan, it requires only a short period of boiling during which to disperse. The product should be added 5 minutes from the end of the boil; it is not sufficient to make the addition then allow the kettle to stand. Equally, adding the product any earlier in the boil will cause excessive degradation of the carrageenan and reduced fining performance.

If it is not possible to interrupt the boil or to open the kettle, the product can be added to the whirlpool where it will disperse quickly.

5 GUIDELINES FOR USE

DO

- 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

DO NOT

- Open the kettle to make the addition unless the boil temporarily has been turned off
- Add the product significantly earlier or later than the recommended time

6 TECHNICAL SUPPORT

For Health & Safety information on this product, please see the Materials Safety Data Sheet (MSDS)

For support and advice on the use of this product, please call or e-mail our Technical Administrator:-

Telephone:- + 44 (0)115 978 5494

E-Mail:- laboratory@murphyandson.co.uk

7 SPECIFICATION

Composition	Refined carrageenan, produced by alkali treatment of <i>Euchema cottonii</i> , specifically for use in brewing, and dispersants	
Appearance	Off-white tablets	
Odour	Free from odour	
<u>Analysis</u>		
Tablet weight (g)	5 +/- 0.3 g	
<u>Microbiological</u>		
Total Plate Count (cfu/g @ 37°C)	< 10,000	
Yeast and Moulds (cfu/g @ 25°C)	< 100	
E. coli	Absent in 1g	
Salmonella	Absent in 25g	
Staphylococcus	Absent	

<u>Maximum Limits of Impurities</u>	
As (ppm)	3
Pb (ppm)	10
Cu (ppm)	50
Zn (ppm)	25
Cu + Zn (ppm)	50
Al	100

8 REFERENCE

Product	Koppakleer T
Authorised by	C.J. Fleming
Issue No.	3.0

Product Code	KKT
Formulation	
Date	17/11/94