

FOAMSOL (FDC 511)

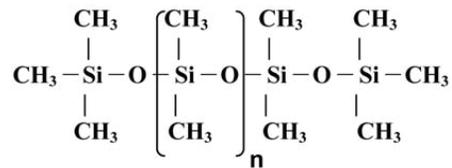
Foamsol is a water based emulsion of dimethylpolysiloxane designed to control foams produced in kettle and fermenter.



PRINCIPLE

Dimethylpolysiloxane is an inert polymer which is highly effective in foam suppression.

Bubble collapse occurs as a result of reduction of surface tension in the liquid film.



BENEFITS

- Increased kettle utilization.
- Increased fermenter utilization.
- Preservation of foam-positive proteins.
- Increased alpha-acid utilization.
- Elimination of over-foaming problems.
- Optimized CO₂ recovery.
- Enhanced vessel cleaning.



QUICK NOTES

BENEFITS

- Increased fermenter and kettle capacity
- increased alpha acid utilization
- Preservation of foam positive proteins

TREATMENT RATES

2-10 ml/hl
depending on beer type and addition point

APPLICATION

Add to wort in-line while fermenter is being filled, or directly to kettle



TREATMENT RATES

The optimum treatment rate for Foamsol depends on beer type, vessel dimension, and point of application but is typically in the range 2–10 ml per hectolitre.

The starting point for plant trials should be 4 ml per hectolitre. If using a crossflow filter, add maximum 2.5 ml/hl into the FV.



APPLICATION

Efficient dispersal of the insoluble silicone compound is essential to achieve optimum effect. This is best facilitated by adding Foamsol to the wort in-line as the fermenter is filled.

Alternatively, Foamsol can be added to the kettle, where a higher addition rate may be required, or to the surface of the fermenting beer via the CIP system.



No Foamsol – 20 hrs



Foamsol 4ml/hl – 20hrs



No Foamsol – 31 hrs



Foamsol 4ml/hl – 31hrs



BREWING PRACTICE

Dimethylpolysiloxane has been successfully used in beer production, throughout the world, for more than 30 years. Over this period it has been shown to deliver consistent benefits to the brewer, with no adverse effect on beer foam or flavor stability.



BREWING PRACTICE

Foamsol is supplied in 5kg and 25kg packages. Foamsol should be stored in cool (3°C – 30°C) dry conditions in unopened packaging. Shelf life is 36 months for unopened packaging in recommended storage conditions



REMOVAL FROM BEER

It is important that none of the active component of Foamsol, dimethylpolysiloxane, remains in the finished beer. Yeast removes the major part by absorption onto the cell wall. The remainder is removed on the filter. The removal of Foamsol from beer in this way can be easily demonstrated by a simple experiment (methodology available on request).

Foamsol Addition (ml/hl)	Beer Foam after Processing (Rudin ½ life, seconds)
0	97.5
1	98.4
2	98.1
4	98.1
8	97.6

REGULATORY

Whilst Foamsol is used as a processing aid and not a food additive in the brewing process, dimethylpolysiloxane also meets the requirements of the Joint FAO/WHO Expert Committee on Food Additives (JECFA) INS 900a
USA
 Dimethylpolysiloxane is authorised by Food and Drug Administration under 27CFR173 subpart L section 173.340

UK and EC

E900 is an authorized food additive under Regulation 1333/2008 (as amended). It can also be used as a processing aid as it meets the requirements of EU General Food Law (Regulation (EC) No 178/2002 (as amended)).

Australia and New Zealand

Food standards code Standard No 1.3.3. lists dimethylpolysiloxane as a permitted food processing aid

CONTACT US

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

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