

# Technical Information



## Profoam (PGA 511) Beer Foam Stabiliser

### Description

Profoam is a powder form of propylene glycol alginate produced by the esterification of alginic acid. It is designed to give a trouble free method of enhancing and protecting beer foam.

Many years of development have been undertaken to identify both the ideal blend of seaweed species required to yield alginic acid of the necessary quality, and to optimise the critical esterification stage.

The resulting Profoam is free from the technical problems associated with the less technically refined products on the market.

### Principle

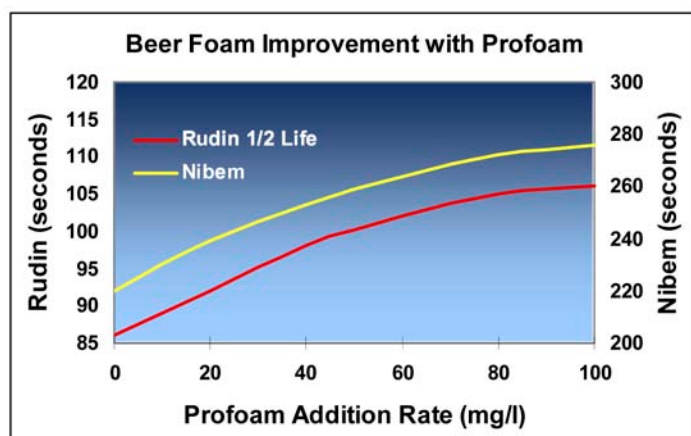
Profoam stabilises beer foam in two ways. Firstly by actively interacting with foam positive, hydrophobic beer polypeptides, and secondly by reducing the impact of foam negative factors.

This latter effect explains the positive role Profoam also plays in protecting beer foam from external contamination, particularly from grease and detergents.

### Treatment Rates

The optimum treatment rate varies from beer type to beer type but typically will be in the range 40 – 60 mg/litre.

Beer foam can benefit from higher addition rates than these, particularly when reduced levels of malt are used in the grist.



### Application

Profoam is added to beer via a 1% w/v solution, immediately after filtration. Care must be taken in the preparation of this solution.

### Preparation of Solution

Profoam is a very hygroscopic powder and if added to water too quickly it will form lumps. To avoid this, high speed mixers are required; the powder should be added slowly, directly into the vortex.

Profoam solutions can be prepared over a temperature range of 4°C to 40°C. Normally lower temperatures should be used, but higher temperatures can aid dissolving and help compensate for poor mixing equipment.

Large solution volumes may need to be mixed for up to 2 hours. It is important to check the solution before use to ensure the powder is completely dissolved.

A simple in-line filter is a useful addition, as it ensures that no undissolved powder is added to beer. A screen size of 1,000 micron is adequate for the purpose.

The prepared solution should be used within 2 days. The addition of sulphur dioxide up to 200 mg/litre, via potassium or sodium metabisulphite, will help improve microbial stability.

### Brewing Practice

Profoam is a well accepted brewing aid used extensively throughout the world.

Beer treated with Profoam has characteristic attractive foam, which is maintained even under less than ideal serving conditions.

### Packaging

Profoam is supplied in standard 20 kgs sacks, which incorporate in their make-up an ingenious aluminium layer which prevents contamination from external taints.

Profoam should be stored cool, in unopened sacks. Shelf life is 24 months; at least 12 months can be expected under more adverse storage conditions.

### Regulatory

UK and EEC

Permitted in beer under Council Directive: 95/2/EC to a maximum of 100 mg/litre.

E 405

Australia and New Zealand

Permitted in beer under Schedule 14.2.1 of Standard 1.3.1