Protafloc Kettle Finings stands as a versatile, granular carrageenan product with a wide range of applications. Its primary role lies in the brewing process, where it enhances protein removal as wort cools in the kettle. Additionally, it finds utility in the food industry as a thickener, coagulant, gel-forming agent, and stabilizer.

sette sumba Protafloc

Benefits:

- Natural Efficacy: This natural product effectively removes haze-forming substances from the wort without compromising the beer's head retention.
- Enhanced Clarity: Protafloc leads to clearer worts, reducing the need for additional finings in later stages of brewing.
- Improved Fermentation: It boosts the rate of fermentation and attenuation, contributing to brewing efficiency.
- Enhanced Filtration: Extended filter runs make the brewing process more efficient.
- Shelf-Life Extension: Small-pack beers benefit from a prolonged shelf life when Protafloc is used.
- Time-Saving: By reducing processing time, it streamlines the brewing process.
- Processing Aid: Protafloc is categorized as a processing aid rather than an additive, eliminating the need for label declaration.
- Reduced Losses: It minimizes losses from tanks, saving resources.
- Exceptional Efficiency: Protafloc outperforms competitive products by 5-10%.

Principle:

Protafloc Granules contain carrageenan, a polysaccharide derived from seaweed. Carrageenan is negatively charged due to sulfate groups on its structure, facilitating interactions with wort proteins.

At temperatures above 65°C, carrageenan adopts a random coil structure. During wort cooling, it transforms into a more ordered helical structure, believed to gather protein particles into aggregates. These larger aggregates settle faster.

Kettle finings are exclusively added to the kettle to ensure carrageenan dissolves. As the wort cools, carrageenan interacts with wort proteins, which subsequently settle during fermentation or in the whirlpool, removing excess yeast and undesirable particles.

Application:

For optimal results, introduce Protafloc Granules into the kettle approximately fifteen minutes before the boil's conclusion. Adding them earlier can lead to polymer degradation and reduced effectiveness.

To improve dispersion, consider creating a slurry with Protafloc Granules before adding them, especially when employing mechanical kettle addition.

The pH-dependent interaction between wort proteins and carrageenan works best at a pH of 5.3. Below pH 4.4, the effectiveness of Kettle Finings diminishes.

Rates of Use:

The exact usage rate varies based on the brewery, recipe, malt types, and adjuncts used. Typical rates range from 0.75g to 4.8g per hectoliter (hl). For homebrewers, this translates to 0.15g to 1g per 20-liter batch.