

Clarification of dry-hopped Beers without Filter

A new Challenge

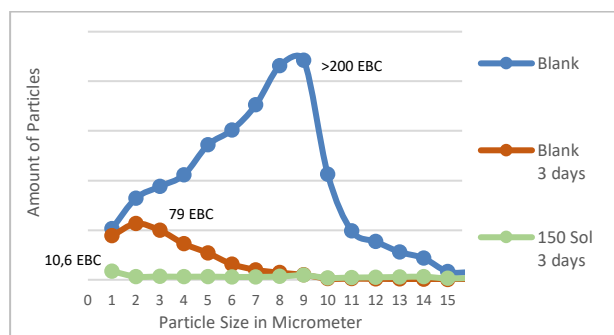
An increasing amount of brewers is adopting the dry-hopping process for their specialty beers. Many of them object to certain filtration techniques, yet consider beer clarity as a desirable quality parameter.



STABISOL, a special silicasol grade by Stabifix, is designed to clarify beer on its own. But it will also improve efficiency and increase capacity of separators and filters.

Clarification

By complexing finest particles STABISOL accelerates sedimentation. Measurements with particle counter OPM 32 from Sigrist show that particles below one micron do not settle well compared to particles above one micron.



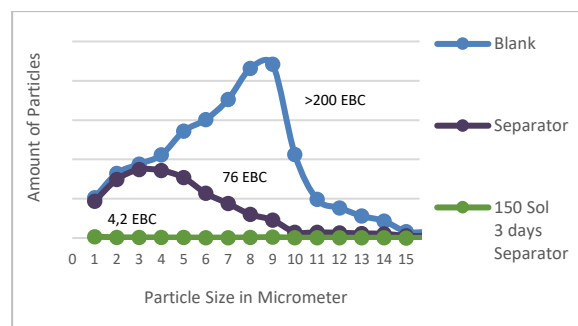
When beer is treated with STABISOL a significant reduction of one micron particles can be observed.

Direct and indirect Stabilisation Effects

It is known that silicasol has an indirect stabilisation effect by reducing finest particles, which function as haze nuclei. At higher dosage rates STABISOL will also have an additional effect on protein stability.

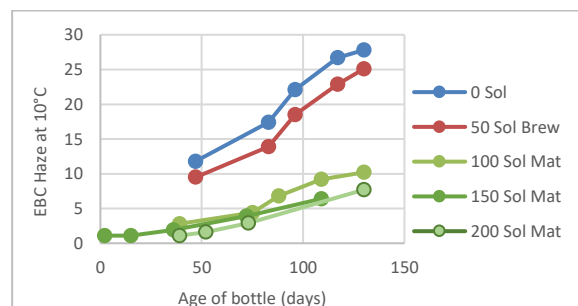
Enhancing Separation

Separators - essentially being sedimentation accelerators – are also more effective in removing particles above one micron. Beers treated with STABISOL prior to separation are much clearer, because the one micron and submicron particles have been complexed to larger particles.



Actual Use in Brewery

A brewery found high haze levels, floating flocks and clouds in their bottled IPA (6,2 ABV, 250 g/hl dry-hopping). Today the brewer adds 150 ml/hl of STABISOL, one day after dry-hopping. Beer is circulated for 15min through hop dosing device, bottom and racking arm of the 60 hl maturation tank. After 2 days sedimentation time the beer is passed through a separator to the bright beer tank.



The variable haze values (40-200 EBC) at maturation stage are now reduced to 10 EBC or below. Sediment is compact and easy to remove. Due to lower and more consistent particle feed the separator is now running at 35 hl/h instead of 10-20 hl/h. The bottled beer is clearer, with a better haze stability and no flocks or clouds observable, even after half a year. No significant impact on beer flavor has been recognised, as long as one day hops contact time is given prior to STABISOL dosage.

Product

STABISOL causes no chemical reactions, can be fully removed and leaves no trace substances behind. It is approved by German Purity Law.

Clarification dosage rates vary from 100 to 400 ml/hl, depending on initial haze level. Required dosage rates can easily be evaluated by laboratory tests at half liter scale.

STABISOL is available in 20 Liter plastic canisters.