



# SPINDASOL SB1



Specific silica sol for wort clarification on the Hot Side



## → TECHNICAL DESCRIPTION

**Spindasol SB1** is a specific fining agent for wort and it is made of amorphous silicon dioxide at a concentration of 30%. Technical characteristics such as surface area, particle size and charge are specifically adjusted in order to achieve the highest possible absorption of coarse break (coarse trub). After the absorption has occurred through specific weight, an immediate sedimentation takes place. The technical properties of **Spindasol SB1** lead to a difference in performance compared to ordinary silica sols that have been used previously. In practice, this leads to a quicker and more efficient sedimentation. In this way, you limit the pause in the whirlpool and thus reduce the risk of formation of DMS (Dimethylsulphide). Shorter pauses improve the taste stability of the beer.

The break from the cast wort, also called coarse trub, consists of large particles (30-80 um in size) which are slightly heavier than the wort and therefore normally settle down well to form a compact mass. The initial amount of coarse break is about 6000-8000 mg/L after casting out. After the reduction of coarse break in the whirlpool it should have decreased to a maximum of 100 mg/L. In some cases, however, not all breweries achieve this value. The reason can be the design of the lauter tun, whirlpool or centrifuge. Other obstacles to meet this end are turbid mash separation as a result of malt quality, defective mash separation, and hop addition containing little or no polyphenols. Insufficient coarse break removal causes the following problems in beer production:

- coating of the yeast,
- negative influence on final beer stability,
- negative influence on final beer filtration,
- the break also contains the fatty acids of the malt.

In this situation, the addition of **Spindasol SB1** definitely helps to improve the quality of the wort. Compared to other traditional finings, **Spindasol SB1** is a pure mineral product and it complies with the German law for beer purity (Deutsches Reinheitsgebot).

The charging of **Spindasol SB1** and its absorption effect do not have a negative influence the taste and head retention. As far as desirable substances in the fermentation phase are concerned, no absorption takes place whatsoever. The result of the treatment with Spindasol SB1 is measured by:

- reduction mg/L of coarse break;
- clearer wort;
- more compact sedimentation;
- less waste;
- improved filterability;
- in some cases, improved stability.

Unlike many other silica sols,  $\text{SiO}_2$  particles of **Spindasol SB1** are not treated with  $\text{AlO}_2$ . The composition of **Spindasol SB1** allows a relatively low dosage (15-30 g/hL), compared to other silica sols.





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### → COMPOSITION AND TECHNICAL CHARACTERISTICS

Colloidal silica sol.

### → DOSAGE

In wort: 15-30 g/hL when treating warm wort. Higher rates can be necessary in wort composed of large quantities of unmalted components (maize, rice, syrups). Laboratory testing at different dosages is recommended in order to achieve optimal results.

### → INSTRUCTIONS FOR USE

In wort **Spindasol SB1** can be added directly in the wort kettle at the end of the boil, separately from the hops (after 5 min). It can also be added in the automatic systems of the hop dosing units. In addition, **Spindasol SB1** can be dosed in continuous flow between kettle and whirlpool with an automatic process. In the event of leakage rinse the surfaces directly with water. Do not expose the product to air for a longer period of time since it may gel.

### → STORAGE AND PACKAGING

Store in a cool and dry place away from direct sunlight and heat. Keep away from frost (7°C min).

**1 kg** net bottles

**25 kg** net drums.

