

Beer Stabilization BECOSORB® 6000

Silica Gel

BECOSORB 6000 silica gel is a silicic acid-hydrogel with an average moisture content of 55%. The defined particle size of BECOSORB 6000 silica gel is formulated especially for beer filtration. Uniform surface structure and pore size together with optimum pore volume guarantee that protein compounds of high molecular weight, which might otherwise give rise to colloidal haze, are adsorbed from the beer.

The specific advantages of BECOSORB 6000 silica gel:

- Selective adsorption of protein fractions of high molecular weight
- No influence on components of low molecular weight that are positive for foam formation
- As a hydrogel, virtually dust free handling
- Acts also as filter media, supports the filtration process
- Can be combined with PVPP and diatomaceous earth products
- Neutral flavor and aroma, chemically inert
- Free from contaminants that would spoil the beer

Application

BECOSORB 6000 silica gel can be used safely for all stabilization processes commonly used in breweries:

1. Application during the sedimentation process
 - When transferring beer from fermentation (cellar) to stabilizing aging tanks
 - When transferring beer from a stabilizing aging tank to another tank
2. Contact method during continuous beer flow
 - When added into the dosing apparatus together with diatomaceous earth (pre-coat filtration)
 - Addition via dosing apparatus in a stabilization tank (advantage: longer contact time).
 - When added into the beer flow directly at the beer blending equipment

Dosage

Desired shelf life of the beer and on

- the fermentation process/pH gradient,
- the oxygen content and turbidity values of the beer,
- the temperature during aging and filtration.

The average dosage is between 0.3 – 1.2 lb/100 gal (40 – 140 g/hl) beer, depending on the protein composition and the desired degree of beer stability.

The following amounts have proven useful in practice:

0.3 – 0.5 lb/100 gal (40 – 60 g/hl)	for a stability of approx. 3 – 4 months
0.5 – 0.7 lb/100 gal (60 – 80 g/hl)	for a stability of approx. 4 – 6 months
0.7 – 1.2 lb/100 gal (80 – 140 g/hl)	for a stability of approx. 6 – 12 months

To improve the stability results it is recommended that 1 lb/100 ft² (50 g/m²) BECOSORB 6000 silica gel are given in the 2nd pre-coat filtration process stage.

Product Characteristics

With its defined particle size, uniform surface structure as pore size and pore volume BECOSORB 6000 silica gel is designed for selective adsorption of proteins of medium and high molecular weight. It has no effect on the protein components of low molecular weight that are important for foam stabilization.

Thanks to its favorable Darcy figures*) (corresponding to a medium diatomaceous earth quality) BECOSORB 6000 silica gel also acts partially as filter media in vessel filters with high throughput volumes.

The absence of a swelling effect reduces beer losses. As a hydrated product, BECOSORB 6000 silica gel forms extremely little dust during handling and is very convenient to use. Proper application of BECOSORB 6000 silica gel guarantees maximum efficiency and economy.

Safety

When used properly no negative effects are known. If dust forms, use an extractor or wear a breathing mask.

Further safety information can be found in the relevant Material Safety Data Sheet, which can be downloaded from our website.



Storage

BECOSORB 6000 silica gel can adsorb moisture and odors. Therefore, it should always be stored well packed in an intact bag in a dry, well-ventilated place that is free from foreign odors.

The material must be stored and transported in the original packaging and protected from moisture and external odors.

The product should not be subject to extreme fluctuations in temperature. If possible, the product should be stored cool (optimum storage temperature is between 44.6 and 68 °F (7 – 20 °C)) and protected from direct sunlight. Condensation under the stretch film caused by large temperature changes or by the effect of the sun should be avoided.

Opened bags should be re-sealed to protect them from moisture (e.g. place into PE bags) and stored according to the above instructions.

Delivery Information

BECOSORB 6000 silica gel is sold under article no. 62.560 and is supplied in the following package size:

45.1 lb (25 kg) valve PE bag

Certified Quality

BECOSORB 6000 silica gel is monitored constantly in the laboratory to ensure consistently high quality.

**) Darcy is the standardized unit of measure for the permeability of a porous bed for liquids.*

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