

Seitz® BS Series Depth Filter Sheets For Reliable Beer Filtration

Seitz BS series depth filter sheets were developed to meet the production needs and requirements of the brewing industry.

Description

From the selection and quality control of raw materials to application of the latest production technologies, the BS series filter sheets meet the highest quality standards. The high stability of BS series filter sheets enables long production runs and fulfills the specific requirements of the brewing industry.

BS series filter sheets are available in multiple grades suitable for polishing and microbial reduction applications within breweries.



Seitz BS Series Filter Sheets

Features	Benefits
Homogenous and consistent media, available in multiple grades	<ul style="list-style-type: none"> • Suitable for coarse to fine beer filtration applications • Proven performance • Reliable microbial reduction with tighter grades
Media stability due to high wet strength	<ul style="list-style-type: none"> • Easy to remove after use • High economic efficiency due to a long service life
A combination of surface, depth and adsorptive filtration	<ul style="list-style-type: none"> • High solids retention • Very good permeability • Excellent filtrate quality
Each individual filter sheet is laser etched with the sheet grade, batch number and production date.	<ul style="list-style-type: none"> • Full traceability

Quality

- Filter sheets produced in a controlled environment
- Manufactured according to ISO 9001:2008 certified Quality Management System

Food Contact Compliance

Please refer to the Pall website www.pall.com/foodandbev for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.

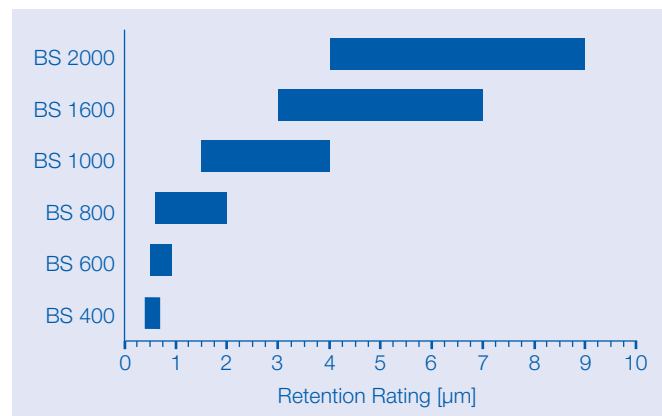
Main Constituents

Cellulose, diatomaceous earth (DE, Kieselguhr), perlite.

Applications

Grade	Application
BS 400 BS 600 BS 800	Reduction of yeast and beer spoilage organisms
BS 1000 BS 1600 BS 2000	Polishing filtration of beer

Relative Retention Rating¹



¹Effective removal performance of filter sheets is dependent on process conditions.

Characterization

Grade	Mass per Unit Area g/m ²	Thickness mm	Ash %	Water Permeability ² L/m ² /min (gal/ft ² /min)
BS 400	1380	3.9	48	95 (2.3)
BS 600	1360	3.9	48	130 (3.2)
BS 800	1320	3.9	48	175 (4.3)
BS 1000	1300	3.8	48	225 (5.5)
BS 1600	1260	3.8	47	305 (7.5)
BS 2000	1240	3.8	46	410 (10.0)

These figures have been determined in accordance with in-house test methods and the methods of the Technical / Analytical Work Group within the European Depth Filtration Association.

²The permeability was measured under test conditions with clean water at 20 °C (68 °F) and a Δp of 1 bar (14.5 psi).

Regeneration

BS filter sheets may be rinsed with clean water (in the forward or reverse³ direction) to increase throughput and to optimize economic efficiency. Optimal regeneration of filter sheets installed in a plate and frame filter may be achieved with serial rinses of warm water followed by hot water. An example protocol is shown below.

1. Rinse with warm water (60 °C / 140 °F) for 15 minutes
2. Rinse with hot water (70 – 80 °C / 158 – 176 °F) for 8 – 10 minutes

The rinse flow rate should be equivalent to the filtration flow rate with a back pressure of 0.5 – 1 bar (7.2 – 14.5 psi).

³When rinsing in the reverse flow direction, it is critical to control particulate and microbial levels in the rinse water so that the filtrate side of the sheet is not contaminated. Water used for reverse flow flushes should be particle-free and if the filter will not be sterilized prior to re-use the water should be free of microbes. Backwashing should be in a diagonal direction from outlet to inlet in a plate and frame filter.

Sterilization and Sanitization

Method	Temperature °C (°F)	Maximum Differential Pressure bar (psi)	Time ⁴ / Cycle min
Steam	125 (257)	0.5 (7.2)	20
Hot Water	90 (194)	1 (14.5)	30

⁴The actual time required may vary as a function of the process conditions.

Filtration Guidelines⁵

As the filtrate quality can be impacted by the filtration flow rate, the following table provides guidelines for flux rate.

Application	Flow Velocity L/m ² /h (gal/ft ² /h)	Maximum Differential Pressure bar (psi)
Polishing filtration of beer	150 (3.7)	1.5 (21.8)
Reduction of low microbial levels in beer (yeast, spoilage microbes)	150 (3.7)	1.5 (21.8)
Reduction of high microbial levels in beer (yeast, spoilage microbes)	100-120 (2.5-3)	1.5 (21.8)

⁵Please contact Pall for recommendations on your specific filtration process as results may vary by product, pre-filtration and filtration conditions.

For additional operating guidelines, including rinsing of sheets prior to use, please refer to instructions provided by Pall.

Available Sheet Formats

Folded Sheets

1003 mm x 2016 mm (39.5" x 79.3")

1205 mm x 2420 mm (47.4" x 95.3")

Other formats are available on request.



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Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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