

## Seitz® ZD Series Depth Filter Sheets

### For a wide range of Food and Beverage Applications

Pall's Seitz® ZD (Zero DE) depth filter sheets Series consists of pure cellulose filter sheet media and has been developed to meet the need of the Food and Beverage Industry for filter sheet media, based on 100% pure cellulose fibers without any use of Diatomaceous Earth (DE) or Perlite. The filter has been designed to give excellent filtration performance respecting product quality on a very high level.

#### Description

Seitz ZD flat filter sheets consist of highly fibrillated pure cellulose fibers and are produced without the use of any inorganic material such as DE or Perlite.

Seitz ZD filter sheets are available in multiple grades suitable for microbial reduction as well as fine and clarifying filtration.

#### Features and Benefits

Features	Benefits
100% pure cellulose depth filter media: no inorganic components	<ul style="list-style-type: none"> <li>• very low impact on color and flavor</li> <li>• very high purity, low extractables, low ion release</li> <li>• 50% less water consumption for conditioning and regeneration</li> <li>• extremely good sealing character in filter presses, minimizing drip losses</li> <li>• 100% biodegradable material</li> </ul>
high fibrillated Cellulose Fiber Matrix	<ul style="list-style-type: none"> <li>• very strong filtration media</li> <li>• easy to regenerate</li> <li>• high hold up volume for long filtration cycles</li> <li>• very good particle and microbiological retention</li> </ul>

#### Applications

Grade	Application
Seitz-EK ZD Seitz-KS 80 ZD	<ul style="list-style-type: none"> <li>• Microorganism reduction and yeast removal in beverages like Wine, Beer, Juices and Liquid Food</li> <li>• Final filtration of Juices and Juice Concentrate prior to membrane filtration</li> <li>• Microorganism reduction in sugar syrups</li> <li>• Microorganism reduction in enzyme solutions</li> </ul>
Seitz-K 100 ZD Seitz-K 250 ZD	<ul style="list-style-type: none"> <li>• Polishing filtration of Wine and Beer</li> <li>• Haze removal in beverages</li> <li>• Polishing filtration of Olive Oil obtaining additional water removal effect</li> </ul>



#### Conditioning

Prior to use, it is recommended to rinse the filter with clean water at ambient temperature with > 50 L/m<sup>2</sup>.

#### Regeneration<sup>1</sup>

If the filtration process allows regeneration of the filter matrix, Seitz ZD filter sheets may be rinsed with clean water (in forward or reverse direction) to increase total throughput optimizing economic efficiency. Optimal regeneration of filter sheets installed in a plate and frame filter may be achieved with several rinses of cold water followed by hot water. An example protocol is shown below.

1. Rinse with cold water (ambient temperature) for 5 minutes
2. Rinse with warm water (max. 60°C/140°F) for 10 minutes

Rinsing flow rate should be 1/2 of the filtration flow rate with a counter pressure of 0.5-1 bar (7.2-14.5 psi).

#### Materials of Construction

Sheet Media 100% Cellulose fibers

<sup>1</sup> When rinsing in the reverse flow direction it is critical to control particulate and microbial levels of the rinsing 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 microorganisms. Backwashing should be in a diagonal direction from outlet to inlet in a plate and frame filter. The actual time required may vary as a function of the process conditions.

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

## Recommended Flow Rates and Differential Pressure

Seitz ZD Grade	Application	Flow Rate Wine and other Beverages	Flow Rate Beer	Maximum Differential Pressure
		[L/m <sup>2</sup> /h] (gal/mft <sup>2</sup> /h)	[L/m <sup>2</sup> /h] (gal/mft <sup>2</sup> /h)	[bar] [psi]
Seitz EK-ZD	Fine filtration; Filtration prior to final membrane filter	525	120	1,5
Seitz KS 80 ZD		(12,9)	(2,95)	(21,8)
Seitz K 100 ZD	Polishing Filtration; Particle Filtration	850	150	3
Seitz K 250 ZD		(20,9)	(3,68)	(43,5)

## Quality

SEITZ - ZD filter sheets are manufactured according to ISO 9001:2008 certified Quality Management System.

## Food Contact Compliance

All Materials used in SEITZ - ZD filter sheets are compliant with Food Contact Regulations. The depth filter sheets meet the requirements of the recommendation XXXVI/1 within the Lebens-mittel- und Futtermittelgesetzbuch - LFGB (German Foodstuffs and Animal Feed Code), especially §§ 30 and 31 and are approved for cold filtration of food products.

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

## Available Sheet Formats Rectangular Sheets

Sheet Media Type	Size			
	400 mm x 400 mm (15.8" x 15.8")	600 mm x 612 mm (23.6" x 24.1")	1000 mm x 2010 mm OE G/K (39.5" x 79.5")	1000 mm x 2010 mm ME G/K (39.5" x 79.5")
	<b>SAP Ordering Code</b>			
SEITZ EK-ZD	5307570	5304404	5304412	5304406
SEITZ KS 80 ZD	5307572	5304405	5304413	5304407
SEITZ K 100 ZD	5307573	5304408	5304414	5304410
SEITZ K 250 ZD	5301106	5304409	5304415	5304411

OE G/K = Without Slit, pre-folded, carton box packaging (Orion Type Filter)  
ME G/K = With Slit, pre-folded, carton box packaging (Niro Type Filter)

Other formats are available on request. Seitz ZD series filter sheets are also available in SUPRAdisc™ II and SUPRApak™ module configurations. Please contact Pall.



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Please contact Pall Corporation for product applicability to specific National legislation and/or Regional Regulatory requirements for water and food contact use.

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