

## SUPRApak™ ZD Series Depth Filter Modules

### For a Wide Range of Food and Beverage Applications

Pall's SUPRApak Zero DE (ZD) module series is a unique combination of Pall's SUPRApak design for sheet based modules and a pure cellulose depth filter sheet media for food and beverage applications. The filter has been designed to give excellent filtration performance and lower filtration costs.

#### Description

The SUPRApak ZD Series combines a 100% cellulose depth filter sheet matrix and Pall's SUPRApak design with the unique "edge flow" principle. The SUPRApak ZD filter media was developed to meet the need of the food and beverage industry for filter sheet media, based on 100% pure cellulose fiber matrix material without any content of diatomaceous earth (DE) or Perlite. SUPRApak ZD filter modules are available in multiple grades, suitable for microbial reduction, fine filtration and clarifying filtration in various food and beverage applications.

#### Features

100% pure cellulose depth filter media: no inorganic components

Highly fibrillated cellulose fiber matrix

SUPRApak design "edge flow" Technology

#### Benefits

- Very low impact on color and flavor
- Very high purity, low extractables, low ion release
- Up to 50% less water consumption for conditioning and regeneration

- Very strong filtration media
- Easy to regenerate
- High hold up volume for long filtration cycles
- Very good particle and microbiological reduction

- Optimized use of depth filter matrix
- Very high filtration area per module
- Compact module design
- Enabling enclosed, more hygienic sheet filtration



SUPRApak ZD Series Module

#### Applications

Grade	Application
SUPRApak ZD 5200 SUPRApak ZD 5300	<ul style="list-style-type: none"> <li>• Reduction of fine particles</li> <li>• Filtration of beverages and liquid food that require very high clarity and very high particle removal capacity</li> </ul>
SUPRApak ZD 5500 SUPRApak ZD 5900	<ul style="list-style-type: none"> <li>• Polishing filtration of beverages such as wine, beer, distilled spirits, fruit juices, flavors, and liquid food</li> <li>• Filtration/de-watering of high quality olive oil</li> </ul>

#### Materials of Construction

Component	Description
Sheet media	Resin-bonded cellulose
Center core	Polypropylene
Straps	Polyester

#### 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>

SUPRApak ZD filter modules may be rinsed with clean water **only in forward direction** to optimize total throughput and economic efficiency. Optimal regeneration may be achieved with several rinses of cold water followed by warm water. An example protocol is shown below.

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

Rinsing flow rate should be max. 1½ of the filtration flow rate with a counter pressure of 0.5-1 bar (7.2-14.5 psi).

<sup>1</sup> Avoid any backpressure as it destroys the module. Water used for forward flow flushing should be particle-free, and if the filter will not be sterilized prior to use, the water should be free of microorganisms. 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.

## Quality

SUPRApak PZ Filters are manufactured according to ISO 9001: 2015 certified Quality Management System.

## Food Contact Compliance

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.

## Recommended Flow Rates and Differential Pressure

SUPRApak Grade	Application	Flow Velocity Wine and Other Beverages	Flow Velocity Beer	Maximum Differential Pressure
		[L/Module/h] (gal/Module/h)	[L/Module/h] (gal/Module/h)	[bar] [psi]
		L (16")	L (16")	
ZD 5200	Fine filtration; Filtration prior to final membrane filter	3,500 (930)	1,580 (412)	1.5 (21.8)
ZD 5300				
ZD 5500	Polishing filtration; Particle filtration	5,695 (1,504)	2,000 (528)	1.0 (14.5)
ZD 5900				

## Available SUPRApak Formats

Module Size	
SUPRApak ZD L	16"

## Ordering Information

ZD	5200	L	W
Sheet Media Range	Media Type	Size (Diameter)	Regulatory
ZD	5200	L = 16"	Food Contact Compliance
	5300		
	5500		
	5900		

### Example part number: ZD 5200 L W

Zero DE range, 5200 media, 16" diameter. Material is food contact compliant ("W").

SAP Ordering Code	Material Description
5302798	SUPRApak ZD 5200 LW
5302804	SUPRApak ZD 5300 LW
5302805	SUPRApak ZD 5500 LW
5302806	SUPRApak ZD 5900 LW



+1-866-905-7255 **Food and Beverage toll free**  
[foodandbeverage@pall.com](mailto:foodandbeverage@pall.com)

**Corporate Headquarters**  
 Port Washington, NY, USA  
 +1-800-717-7255 toll free (USA)  
 +1-516-484-5400 phone

**European Headquarters**  
 Fribourg, Switzerland  
 +41 (0)26 350 53 00 phone

**Asia-Pacific Headquarters**  
 Singapore  
 +65 6389 6500 phone

Visit us on the Web at [www.pall.com/foodandbev](http://www.pall.com/foodandbev)

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The information provided in this literature was reviewed for accuracy at the time of publication. Product data may be subject to change without notice. For current information consult your local Pall distributor or contact Pall directly.

*IF APPLICABLE* 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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