

# TECHNICAL INFORMATION

## The Carlson Washable Support Sheet

Carlson has developed a washable support sheet for the retention of filter aid which has been applied both as a pre-coat and as a body feed addition to the main unfiltered product.

Specially designed for this type of application, these sheets incorporate a number of important benefits:

Because these support sheets are manufactured from pure cellulose incorporating carefully chosen wet strength resins within the cellulose matrix, the sheet has a high wet strength and is very durable. This allows the sheets to be used time and time again, so minimising costs.

The pore size distribution of the sheet is carefully controlled so that there is an even build up of the filter cake on the sheet. This ensures that filter capacity is maximised and that there is minimum risk of bleed through of even the finest of fines, whilst minimising the pressure drop through the filter.

They are very tolerant of pressure transients during the filtration cycle because of the formulation used in their manufacture, which coupled with the manufacturing process, produces an extremely durable yet flexible sheet.

All washable support sheets are available as folded or single sheets to fit virtually any of the filter press sizes and types currently in use.

The Washable support sheets also act as a support for filter aids which include, kieselguhr, perlites, activated carbon, polyvinylpyrrolidone (PVPP) and other specialist treatment powders.

Due to the sheets added strength they have also found important applications within the diagnostic and absorbent related industries.

Physical Data			
Test properties	Basic weight	Thickness	Flow rate
units	g/m <sup>2</sup>	mm	litres/min/m <sup>2</sup> @ 1 bar
W2N	900	3.35	3100

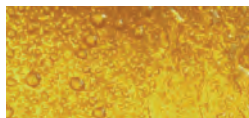
• The above figures are nominal values, for specification contact your representative.

## Instructions for correct use

When inserting into the filter press handle the filter sheets with care to eliminate distortion or abrasion. Never use a damaged filter sheet.

### Insertion of depth filter sheets

To ensure correct use place the smooth side of the filter sheet against the filtration plate (i.e downstream). The rough side of the filter sheet faces the liquid to be filtered (i.e upstream).



## Filter preparation

Prior to the first filtration it is recommended where possible to pre-rinse the closed filter with approximately 50 litres of water per m<sup>2</sup> at 1.25 times the flow rate. During pre-rinsing check for leakage, re-tighten to eliminate if necessary.

## Sterilisation

Carlson W2N support sheets may be sterilised with hot water. The pressed filter pack has to be loosened slightly to ensure that the hot water has entirely sterilised the system. Final pressure should only be applied to the filter package once the entire filter has cooled down.

### Sterilisation with hot water:

Water quality:	The water should be softened and be free of impurities
Temperature:	80-85°C
Duration:	20 minutes

## Sheet flushing

The Carlson W2N support sheets can be forward and back washed using softened water to extend the life and reduce the costs of filtration. This is, however, very much dependent upon the application and filtration conditions.

### Regeneration procedure:

Cold rinsing:	in direction of filtration for approximately 5-10 minutes
Temperature	15-20°C
Hot rinsing;	forward or reverse direction of filtration for approximately 10 minutes
Temperature	60-80°C

## Safety and disposal

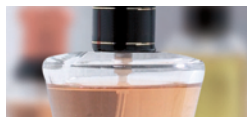
Used under the correct conditions Carlson W2N support sheets have no known negative effects and can be disposed of through normal route, observing local and official regulations. Consult MSDS for further information.

## Storage

Store in a place which is dry, cool and free from strong odours.

## Forms of supply

W2N support sheets are available in all customary sizes, hygienically shrink-wrapped and packed in cardboard boxes. Special formats are available on request.



## Remarks

All Carlson Filtration Ltd filter sheets are manufactured in accordance with BfR recommendation XXXV1/1 (regulations regarding paper and board designed for contact with foodstuffs) and EC Regulation No 1935/2004 (materials and articles intended to come into contact with food).

All our products are made according to the rules of Quality Management System EN ISO 9001:2008

We provide information and advice to the best of our knowledge. This information cannot be binding in every case on account of the variety of applications, work methods and operating conditions. We, therefore, cannot assume liability for improper use.



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