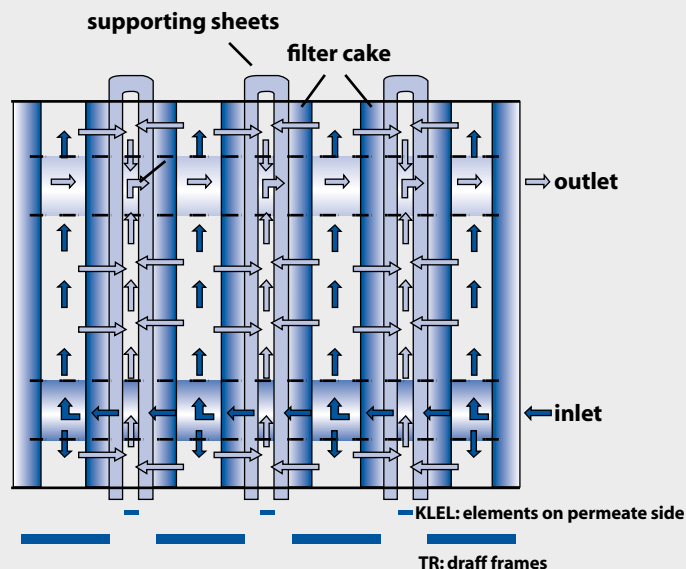


# FILTRODUR® 900

## SUPPORT SHEETS



Washable support sheets for precoat filtration (alluvium filtration)



### Characteristics

The FILTRODUR® 900 is a supporting sheet for precoat filtration. Due to the unique mixture of high quality cellulose fibers and a selected wet strength agent it is developed for superior long lifetime at high challenges. The FILTRODUR® 900 is optimized for a high «Doublefold» number. This reflects high strain resistance which is needed at the position where the frame is pressed into the sheet for sealing.

### Applications

There is a broad field of applications for the precoat filtration with the FILTRODUR® 900. The main applications are characterized by a high percentage of solids in a turbid liquid (solid content approx. 0.8 – 1 %) that need to be retained.

Mainly used in the beverage industries for beer filtration it is also used in industrial applications i.e. pharmaceutical and/or biotech processes.

### Function principle (precoat filtration)

Filter aid(s) suspended in a liquid are deposited on cellulosic sheets in plate and frame filter processes. The cellulose does not filter at all, but act as septum for the filter aids, it is the applied «cake» of filter aid which does the filtration. The differential pressure build up signals the end of the filtration run. Since the cake is usually thicker than a filter sheet, precoat filters render longer runs and have a larger dirt-holding capacity. The spent cake can be flushed from the sheet with a gentle water or compressed air jet, or it can be carefully scraped off the sheet.

After washing and sterilization the sheet is ready for another use.

### Special applications

Precoat filtration can be used like a simple chromatography: The precipitate of the valued product is washed ashore the filter cake, all liquid impurities are separated. By changing pH, solvent or temperature it can be dissolved and washed through the cake: insoluble impurities remain on the cake.

### Sterilization conditions

The sheets can be sterilized by hot water (85°C) or inline steam (120°C).

### Technical data

| Parameter                    | Value     | Unit                 |
|------------------------------|-----------|----------------------|
| Flow rate (water) at p 1 bar | > 2'700   | l/m <sup>2</sup> min |
| Ash content                  | < 1       | %                    |
| Square meter weight          | 800-1'000 | g/m <sup>2</sup>     |
| Wet strength                 | > 250     | N/50mm               |

## Sheet sizes

The FILTRODUR® 900 are available in various sizes and formats up to 1200 by 2400 mm (double, fold) with an enforced crease.

Standard sizes

- Single sheets  
400 x 400 mm  
600 x 600 mm

– Foldovers

- 400 x 800 mm
- 600 x 1200 mm
- 800 x 1600 mm
- 1'000 x 2000 mm
- 1'200 x 2400 mm

## FILTROX quality assurance

FILTROX assures the best quality control according to international standards:

- ISO 9001 (Quality management)
- ISO 14001 (Environmental management)
- FDA drug master file: # 16418

External tests of filter sheets were performed and certified according to

- CFR requirements by the NAmSA

FILTROX is using polyamidoamine as a wet strength agent in its filter sheets. The ISEGA Institute for food analysis in Aschaffenburg (Germany) performed a test for extractable MCPD and DCP. The FILTROX filter sheets extracts were below the detection limit of the approved standard method for DCP and MCPD.

## EU safety data sheets

EU safety data sheets for the FILTRODUR® 900 can be easily downloaded from the FILTROX home page from the internet. On request they can also be ordered for mail.

## Material

Purified and bleached cellulose, polyamidoamine (< 3%). Free of plastic fibers, inorganic filter aid and formaldehyde. The filter sheets are free of GMO and common allergens.

## Disposal

The pure sheets can be recycled like paper, composted or disposed with the domestic waste.

Contaminated sheets must be disposed appropriately according to the contamination.

## Storage life and conditions

Sheets are to be stored in an odorless store as well as in a dry and ventilated environment in original packing.

We recommend to use the filter sheets within 36 months after production

## Filter aid

FILTRODUR® 900 can be used in combination with any common filter aid, such as diatomaceous earth, perlite, crystalline cellulose etc. However FILTROX recommends the use of Novocel 200 or Novocel 300 or CELTROX® PC for precoating.

The FILTROX CELTROX® PC is a filter aid developed for simple handling.

Please refer to the special documentation, our home page [www.filtrox.ch](http://www.filtrox.ch) or your local dealer.

## Chemical resistance

| Substance                      | Concentration [%] | Resistance |           |
|--------------------------------|-------------------|------------|-----------|
|                                |                   | T = 20° C  | T = 80° C |
| NaOH                           | 1                 | r          | r         |
|                                | 2                 | r          | lr        |
| HCl                            | 5                 | r          | lr        |
| HNO <sub>3</sub>               | 5                 | r          | lr        |
| H <sub>2</sub> SO <sub>4</sub> | 10                | r          | lr        |
| Acetic acid                    | Conc.             | r          | r         |
| Citric acid                    | 10                | r          | r         |
| Peracetic acid                 | 0.1               | r          | r         |
| Butanol                        | 80                | r          | r         |
| Ethanol                        | 80                | r          | r         |

r = resistant; lr = limited resistant

For the complete list please refer to our special documentation

## Options

In some applications, especially at the production of enzymes which have a cellulase activity it is recommended to enforce the sheets in order to prevent decomposition.

For this type of applications FILTROX can add natural fibers with cellulose like structures (Pat. pend.).

Please contact your local FILTROX dealer.



Back of foldover FILTRODUR® 900.

Left: Version for large size with 2 creases and enforcing tape.

Right: Regular version for medium and small sizes with 6 creases.

Your Filtrox dealer:

The information contained in this pamphlet is up-to-date at the time of release. However, each end user is requested to check the suitability of their product(s) with the types of filtration mentioned in this leaflet. Technical modifications are reserved.