



# ACTIVASORB®

## Filter sheets

up to a maximum of 2425 × 1215 mm

Square / Round

Special formats and dimensions on request

# ACTIVADISC®

## Filter modules

Ø 12"

Ø 16"

Standard filter modules

Lenses: 5 – 16

PLUS version: with extra carbon capacity

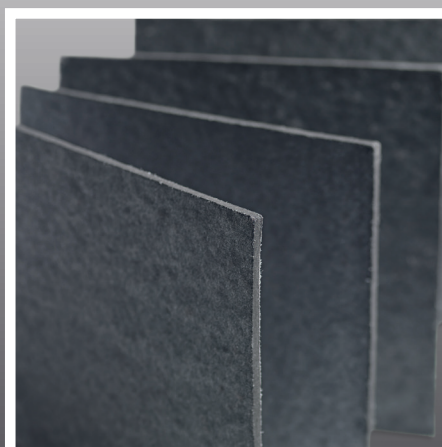
Lenses: 9 – 10

| TYPES / GRADES  | PXS | PR | CA | RHC | RW | LWT | CS | NG |
|-----------------|-----|----|----|-----|----|-----|----|----|
| Pharma          | X   | X  | X  |     |    |     |    |    |
| Food & Beverage |     |    | X  | X   | X  | X   | X  | X  |

Note: All filter sheet types and grades are also available as filter modules.

| Additional filter media from this product line |                        |  |  |    |  |  |
|------------------------------------------------|------------------------|--|--|----|--|--|
| ACTIVACAP®                                     | Capsule for lab trials |  |  | 2" |  |  |

Note: ACTIVACAP® are available with different above mentioned ACTIVASORB® grades inserted.





## MODULES WITH IMMOBILIZED ACTIVATED CARBON

### Description

Lenticular filter modules containing ACTIVASORB® depth filter sheets.

- High activated carbon adsorption capacity incorporated into filter sheets
- Simple and safe activated carbon handling in a module
- Increased adsorption of the activated carbon in comparison to powder
- Regulatory support for pharma grade

### Module Versions

Standard: Standard lenticular filter module  
PLUS: Lenticular module with extra carbon capacity

### Components

Sheet: Purified and bleached cellulose from sustainable sources, natural filter aids, wet strength agents, activated carbon  
Modules: Polypropylene  
Gaskets: Silicone sealing gasket (optionally EPDM, FKM, NBR)

### Extractable

| Substance                          | Description                                       |
|------------------------------------|---------------------------------------------------|
| Endotoxins (CA, PR, PXS)           | <0.125 EU/mL <sup>(1)</sup>                       |
| Heavy metals                       | <50 ppm. According to recommendation XXXVI/1, BfR |
| MCPD / DCP from wet strength agent | In accordance with legal regulations              |
| GMO                                | Absent                                            |
| Allergic substances                | Absent                                            |

<sup>(1)</sup> after rinsing with 50 L/m<sup>2</sup> WFI

### Extractable Ions

| Ca   | Mg   | Pb    | Zn    | Cd     | Cu    | Ni    | Co     | Fe    | Al    |
|------|------|-------|-------|--------|-------|-------|--------|-------|-------|
| <1.0 | <0.5 | <0.06 | <0.01 | <0.005 | <0.01 | <0.02 | <0.025 | <0.05 | <0.05 |

mg/L after rinsing with 50 L/m<sup>2</sup> WFI

| ACTIVADISC®                        | 12" M     |     | 12"       |     | 16"        |     |
|------------------------------------|-----------|-----|-----------|-----|------------|-----|
| Adapter type <sup>(2)</sup>        | DOE       | DOR | DOE       | DOR | DOE        | DOR |
| Height [mm]                        | 132       | 178 | 272       | 330 | 272        | 330 |
| Filtration area [m <sup>2</sup> ]  | 0.6       | 0.7 | 1.7       | 1.8 | 3.4        | 3.6 |
| Number of lenses                   | 5         | 6   | 15        | 16  | 15         | 16  |
| Weight dry/wet <sup>(3)</sup> [kg] | 2.0 / 3.5 |     | 4.4 / 8.5 |     | 8.6 / 17.0 |     |
| Diameter [mm]                      | 290       |     | 290       |     | 400        |     |

| ACTIVADISC®                        | 16" PLUS            |                     |
|------------------------------------|---------------------|---------------------|
| Adapter type <sup>(2)</sup>        | DOE                 | DOR                 |
| Height [mm]                        | 272                 | 330                 |
| Filtration area [m <sup>2</sup> ]  | 2.034               | 2.26                |
| Number of lenses                   | 9                   | 10                  |
| Carbon content [g]                 | 2930 <sup>(4)</sup> | 3255 <sup>(4)</sup> |
| Weight dry/wet <sup>(3)</sup> [kg] | 8.5 / 16.0          | 8.5 / 16.0          |
| Diameter [mm]                      | 400                 | 400                 |

<sup>(2)</sup> DOE: Double Open End (flat adapter). DOR: Double O-Ring (plug-in adapter). <sup>(3)</sup> indicative values.

<sup>(4)</sup> compared to 2440 g for DOE and 2600 g for DOR in a 16" standard module.

## Product Range

| Grade              | Thickness [mm] | Ash content [%] | Application field |
|--------------------|----------------|-----------------|-------------------|
| PXS                | 3.9 – 4.4      | <4.0            | Pharma            |
| PR                 | 4.1 – 4.6      | <2.1            | Pharma            |
| CA                 | 4.0 – 4.5      | <3.0            | Pharma/Food       |
| RHC                | 4.0 – 4.5      | <5.0            | Food              |
| RW <sup>(5)</sup>  | 3.9 – 4.4      | 9.5 – 15.8      | Food              |
| LWT <sup>(5)</sup> | 3.3 – 3.7      | 9.5 – 15.8      | Food              |
| CS <sup>(5)</sup>  | 3.1 – 3.6      | 10.0 – 14.0     | Food              |
| NG <sup>(5)</sup>  | 3.1 – 3.6      | 20.0 – 25.0     | Food              |

<sup>(5)</sup> standard modules only

## Operating Conditions

| Parameter                              | Recommendation          |
|----------------------------------------|-------------------------|
| Maximum differential pressure          | 2.4 bar                 |
| Change out differential pressure       | 1.5 bar                 |
| Rinsing volume                         | 50.0 L/m <sup>2</sup>   |
| Maximum temperature (continuous)       | 82 °C                   |
| Sterilization temperature (short term) | 90 °C                   |
| Minimum temperature                    | -5 °C                   |
| Sterilization                          | Hot water or chemically |

## Chemical Stability

| Substance                      | [%]  | Gasket material |    |     |      |     |     |
|--------------------------------|------|-----------------|----|-----|------|-----|-----|
|                                |      | Media           | PP | MVQ | EPDM | FKM | NBR |
| NaOH                           | 1.0  | r               | r  | r   | r    | lr  | r   |
| HCl                            | 5.0  | r               | lr | lr  | lr   | r   | lr  |
| HNO <sub>3</sub>               | 5.0  | r               | r  | nr  | lr   | r   | nr  |
| H <sub>2</sub> SO <sub>4</sub> | 10.0 | r               | r  | nr  | lr   | r   | nr  |
| Citric acid                    | 10.0 | r               | r  | r   | r    | r   | r   |
| Acetic acid                    | 20.0 | r               | lr | nr  | lr   | r   | nr  |
| Peracetic ac                   | 0.1  | r               | r  | r   | lr   | lr  | lr  |
| Acetone                        | conc | r               | lr | lr  | r    | nr  | nr  |
| Ethanol                        | 80.0 | r               | r  | lr  | r    | r   | nr  |
| SO <sub>2</sub>                | 0.1  | r               | r  | r   | r    | r   | nr  |

r = resistant, lr = limited resistance, nr = not resistant, at 50 °C. This table is for guidance purposes only

## Quality Assurance

Certified to:

- ISO 9001 (quality management)
- ISO 14001 (environmental management)
- Kosher certificate

Compliant to:

- Recommendation XXXVI/1 of the German Federal Institute for Risk Assessment (Bundesinstitut für Risikobewertung, BfR)
- FDA (US Food and Drug Administration) 21 CFR 177.2260 e-k
- EU-Directive 10/2011
- USP Class VI certification

|                              |                                                                                                                                                                                                                                                                                                                                |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Packaging and Storage</b> | ACTIVADISC® filter modules are hygienically packed in plastic bags and placed in cardboard boxes. They must be stored in their original packaging in a dry, odorless and well-ventilated area. The modules should be used within 36 months for life science and 60 months for food and beverages from the date of manufacture. |
| <b>Disposal</b>              | The respective official regulations for disposal must be followed depending on the filtered product. Uncontaminated modules can be disposed of as non-hazardous waste.                                                                                                                                                         |
| <b>Remarks</b>               | The validity of the information cannot be guaranteed for every application. All information is based on current knowledge and does not claim to be complete. No liabilities can be derived from this information. FILTROX reserves the right to make changes in the course of technical improvements.                          |