

# FIBRADISC® AF

## LENTICULAR FILTER MODULES



<b>Description</b>	Lenticular modules containing FIBRAFIX® AF depth filter sheets manufactured under tightly controlled conditions to exacting specifications.	
<b>Module Version</b>	Standard:	Standard lenticular module
	Plus 2:	Back flushable module
	HT:	High temperature resistant module (Plus 2 N/A)
<b>Components</b>	Filter Sheet:	Purified and bleached cellulose from sustainable sources, natural filter aids, wet strength agent
	Standard and Plus 2:	Polypropylene
	Screen:	Polyester (Plus 2 only)
	HT:	Polyamide
	Gaskets:	Silicone sealing gasket (optionally EPDM, FKM, NBR)

Dimensions	12" K		12" <sup>(1)</sup>		16" <sup>(1)</sup>	
	DOE	DOR	DOE	DOR	DOE	DOR
Adapter type <sup>(2)</sup>						
Height [mm]	132	178	272	330	272	330
Filtration area [m <sup>2</sup> ]	0.6	0.7	1.8		3.6	
Number of lenses	5	6	16		16	
Dry/wet weight <sup>(3)</sup> [kg]	2.0 / 3.5		4.4 / 8.5		8.6 / 17	
Diameter [mm]	290		290		400	

<sup>(1)</sup> Plus 2 available, <sup>(2)</sup> DOE: Double Open End (flat adapter), DOR: Double O-Ring (plug-in adapter), <sup>(3)</sup> indicative values.

### FIBRADISC® AF Product Range

Sheet grade	Retention rate [µm]	Water value <sup>(4)</sup> [L/m <sup>2</sup> ×min]	Ash content [%]	Filtration type
AF 09	10.0 – 30.0	1500 – 2100	<1.0	Coarse
AF 11	10.0 – 30.0	1100 – 1700	<1.0	Coarse
AF 17	8.0 – 20.0	1200 – 1400	42.0 – 46.0	Coarse
AF 21 <sup>(5)</sup>	6.0 – 15.0	690 – 870	19.0 – 25.0	Fine
AF 31 <sup>(5)</sup>	5.0 – 12.0	280 – 360	39.5 – 44.5	Fine
AF 41 <sup>(5)</sup>	4.0 – 9.0	240 – 300	29.0 – 35.0	Fine
AF 71 <sup>(5)</sup>	1.5 – 3.0	160 – 220	35.0 – 41.0	Fine
AF 101 <sup>(5)</sup>	0.5 – 1.5	98 – 121	39.0 – 45.0	Fine
AF 110	0.5 – 0.8	69 – 81	46.1 – 51.1	Sterile
AF 120	0.4 – 0.7	50 – 65	36.0 – 42.0	Sterile
AF 130	0.4 – 0.6	43 – 52	47.5 – 52.5	Sterile
AF 140	0.2 – 0.4	26 – 35	47.5 – 52.5	Sterile

<sup>(4)</sup> Δp = 100 kPa, the indicated water value is not related in any way to the actual filtration flow rate. <sup>(5)</sup> Plus 2 available.

### Bacterial Retention

Sheet grade	Bacterial species	Number of cells	LRV
AF 110	Serratia marcescens	1.0 × 10 <sup>6</sup> /cm <sup>2</sup>	>5
AF 120	Serratia marcescens	1.0 × 10 <sup>7</sup> /cm <sup>2</sup>	>6
AF 130	Serratia marcescens	1.0 × 10 <sup>8</sup> /cm <sup>2</sup>	>7
AF 140	Serratia marcescens	1.0 × 10 <sup>9</sup> /cm <sup>2</sup>	>8

**General Operating Conditions**

Parameter	Recommendation
Maximal differential pressure	2.4 bar / 35 psi
Maximal differential pressure for sterilizing filter sheets	1.5 bar / 21 psi
Rinsing volume	50 L/m <sup>2</sup>
Maximum temperature (continuous)	82 °C
Maximum temperature (short term)	90 °C
Minimum temperature	-5 °C
Sterilization	Hot water or chemically

**Operating Conditions Plus 2**

Parameter	Recommendation
Maximum backflow differential pressure	0.5 bar / 7 psi at 25 °C

**Operating Conditions HT**

Parameter	Recommendation
Maximum temperature (continuous)	110 °C
Maximum temperature (short term)	140 °C

**Chemical Stability**

Substance	[%]	Media		MVQ	Gasket material		
		PP			EPDM	FKM	NBR
NaOH	1.0	r	r	r	r	lr	r
HCl	5.0	r	r	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	r	r	nr	lr	r	nr
Citric acid	10	r	r	r	r	r	r
Acetic acid	20	r	r	nr	lr	r	nr
Peracetic ac	1.0	r	r	r	lr	lr	lr
Acetone	conc	r	lr	lr	r	nr	nr
Ethanol	80	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 standard

- 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

**Packaging and Storage**

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 60 months from the date of manufacture.

**Disposal**

The respective official regulations for disposal must be followed depending on the filtered product. Untaminated modules can be disposed of as non-hazardous waste.

**Remarks**

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 due to technical improvements.