

MARKET LEADERS IN FILTRATION

RONA™ PURAFIX®

DEPTH FILTER SHEETS

Filter

Rona™ PURAFIX® depth filter sheets represent an approved and established filtration technology for solid liquid separation. The three dimensional medium assures superior retention capacity for solid particles at a high flow rate.



FEATURES

- The pore sizes can be fine enough to retain bacteria and thus produce a sterile liquid (logarithmic retention of bacteria up to LRV 8). The dirt holding capacity of a Rona™ PURAFIX® depth filter sheet can be up to 4 kg per m². In the filtration process, solid particles are slowed down and eventually retained by the tortuous path inside the filter sheet and by electrokinetical interactions («zeta potential»). Through this unique mechanism, a high capacity (long lifetime of filter until plugging) can be achieved.
- Rona™ PURAFIX® has a very low ion release
- All materials are FDA approved.

APPLICATIONS FOR PRODUCT

- The broad variety of available porosities allow for their use in a wide range of applications. Porosity grades are available from coarse over fine to germ reducing and germ removing filtration («sterile filtration»).
- Examples of industries:
 - API (Active pharmaceutical ingredients)
 - Biotech (pharmaceuticals)
 - Beverage (spirits)
 - Enzymes
 - Herbal or other natural extracts
 - Pharmaceutical intermediates
 - Solvents

QUALITY STANDARDS

- FILTROX assures the best quality control according to international standards:
 - ISO 9001 (Quality management)
 - ISO 14001 (Environmental management)
 - HACCP
 - 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. All sheets are kosher for passover.

OPERATING CONDITIONS

Depth filter sheets are used in a plate and frame filter. The sheets need to be wetted in place and pre-flushed with 50 L/m². A pressure difference between in and outlet assures constant flow. The sheets are exhausted when the differential pressure exceeds a certain value (1.0 – 2.5 bar, depending on porosity and application).

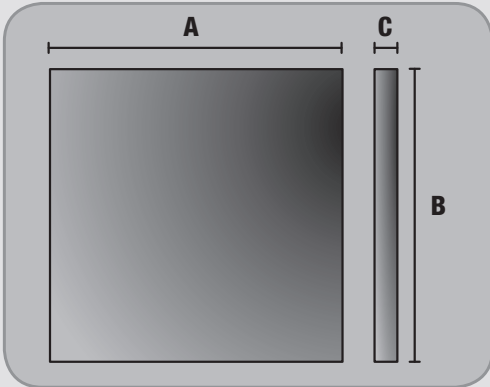
MATERIALS OF CONSTRUCTION

Purified and bleached cellulose, natural inorganic filter aids, polyamidoamine (< 3%). Free of plastic fibers and formaldehyde. The filter sheets are free of GMO and common allergens. Sheets with an ash content > 1 contain diatomaceous earth (DE / «Kieselguhr») or perlite as an inorganic filter aid. FILTROX uses only natural kieselguhr with a cristobalite content < 1 % (detection limit).



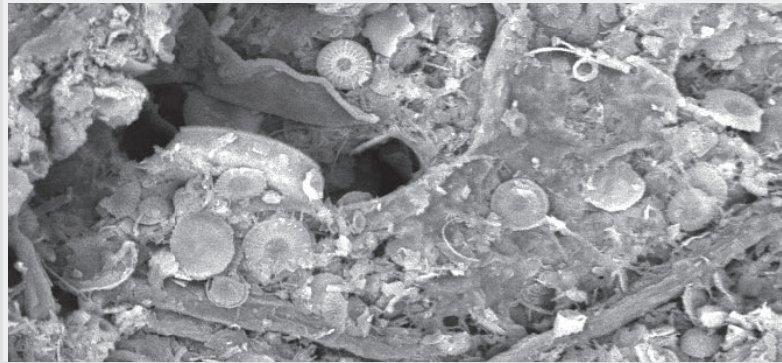
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MEASUREMENTS



A = LENGTH, B= HEIGHT & C= WIDTH

DIATOMACEOUS EARTH



AVAILABLE GRADES

STANDARD VERSION	HIGH CAPACITY VERSION*	RETENTION RATE [UM]	
CH 6 (P)		35 – 15	Coarse filtration
CH 9 (P)		30 – 10	
CH 15 (P)		20 – 8.0	
CH 20 (P)	CH 21H (P)	15 – 6.0	Clarifying filtration
CH 30 (P)	CH 31H (P)	12 – 5.0	
CH 40 (P)	CH 41H (P)	9.0 – 4.0	
CH 50 (P)		6.0 – 3.0	
CH 70 (P)	CH 71H (P)	3.0 – 1.5	Fine filtration
CH 100 (P)	CH 101H (P)	1.5 – 0.6	Germ reducing filtration
CH ST 110 (P)		0.8 – 0.5	Sterile filtration
CH ST 130 (P)		0.6 – 0.4	
CH ST 140 (P)		0.4 – 0.2	
CH ST 150 (P)		0.2 – 0.04	

*Provides increased dirt holding capacity for longer lifetime.

Pyrogen release (for Rona™ PURAFIX® «P» series, only)
 Due to a special manufacturing process the Rona™ PURAFIX® P series has a reduced specified endotoxin release < 0.125 EU/ml.

ORDERING INFORMATION

TYPE	SIZE / A, B & C	ARTICLE NUMBER	OLD ARTICLE NUMBER
PURAFIX CH 9P	1144x1144mm4L64mmLA1	148015	49.11H3.A9406
PURAFIX CH 9P	585x585mm4L39mmLA531	148013	49.11H3.A9277

LOGARITHMIC BACTERIA RETENTION VALUE (LRV)

LRV of germ reducing or germ removing sheets:

TYPE	TEST GERM	LOAD	LRV
CH 101 H (P)	Germ reducing (reducing the no. of germs in filtrate)		
CH ST 110 (P)	Serratia marcescens	1.0 X 107/cm ²	>6
CH ST 130 (P)	Serratia marcescens	1.0 X 108/cm ²	>7
CH ST 140 (P)	Serratia marcescens	1.0 X 109/cm ²	>8
CH ST 150 (P)	Brevundimonas diminuta	1.0 x 109/cm ²	>8
Test germs:	Serratia marcescens, ATCC 14756 Brevundimonas diminuta, ATCC 19146		

CHEMICAL RESISTANCE (FILTER SHEETS)

SUBSTANCE	CONCENTRATION [%]	RESISTANCE	
		T = 20°C	T = 80°C
NaOH	1	R	R
	2	R	IR
HCl	5	R	IR
	5	R	IR
H2SO4	10	R	IR
	Conc.	R	R
Citric Acid	10	R	R
Peracetic Acid	0.1	R	R
Butanol	80	R	R
Ethanol	80	R	R

R= resistant; IR = limited resistant For the complete list please refer to our special documentation