



LIFETEC™ PES-BN-A

ABSOLUTE MEMBRANE FILTER ELEMENTS

fits Donaldson P-FG, PG-EG, PG-IL & P-PT housings
Process Filtration

The Donaldson LifeTec™ PES-BN-A is an absolute grade, high performance polyethersulfone filter element that offers:

- Outstanding filtration performance and microbial stabilization of beer, wine and hard seltzers
- Validated log 7 retention efficiency for pediococcus damnosus and lactobacillus linderi
- Extremely low absorption of proteins
- Highly asymmetrical pore structure for consistent porosity and contamination removal throughout service life
- Compliance with EC/1935/2004 and FDA CFR Title 21 for food contact use
- Conformity with GMP manufacturing requirements as defined by EC/2023/2006
- Robust construction to help resist installation torque and many caustic CIP chemicals



PES-BN-A

INDUSTRIES

- Brewery
- Bottled Water
- Hard Seltzer
- Wine
- Soft Drinks

APPLICATIONS

- Cold Stabilization of Beer
- Final Filtration of Wine
- Clarification of Soft Drinks
- Final Filtration of Hard Seltzers

FEATURES	BENEFITS
Log 7 retention of many beer and wine spoilage organisms	Helps ensure product quality and flavor profile consistency
Excellent flow characteristics	Minimizes production down time and energy consumption
Highly resistant materials	Materials of construction are resistant to many caustic chemicals that are used in CIP processes for prolonged service life
Extremely low absorption of proteins	Reduces spoilage organisms while allowing desirable proteins to remain in the final product
Compliant with EC/1935/2004 and FDA CFR Title 21	Approved for food contact use

SPECIFICATIONS

QUALITY TEST

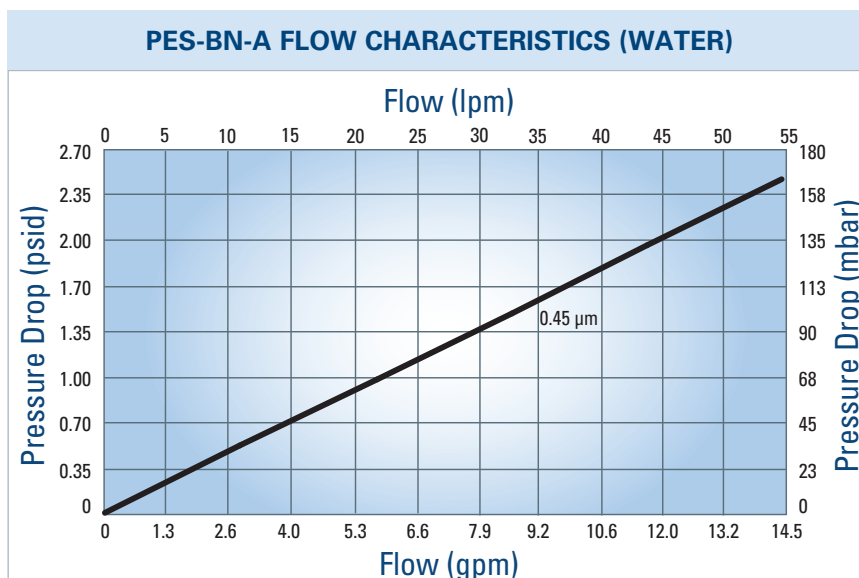
All products have been inspected and released by Quality Assurance as having met the following requirements:

- All 10" sterile filter modules are integrity tested to verify compliance with established quality and design specifications and to assure consistent and reliable performance.
- The traceability of each filter element according to EC/1935/2004 is provided by serial number.
- All PES-BN-A filter elements are completely staged, assembled, tested and packaged in Class 7 clean room facility, whose Quality Management System is approved by an accredited registering body to the appropriate ISO 9001 Quality Systems Standard.

MATERIAL COMPLIANCE USA

All components of the PES-BN-A filter element are FDA listed for food contact use in the Code of Federal Regulations (CFR), Title 21.

MATERIALS		CFR TITLE 21
Membrane	Polyethersulfone	177.2440
Upstream Support	Polypropylene	177.1520
Downstream Support	Polypropylene	177.1520
Outer Guard	Polypropylene	177.1520
Core	Polypropylene	177.1520
End Caps	Polypropylene	177.1520
O-Rings	EPDM	177.2600
	Silicone	177.2600
Sealing Method	Thermal Bonding	



INTEGRITY TESTING

Bubble-Point-Test*			Diffusions test / Forward Flow Test*	
Filter Grade	Minimum Bubble Point		Filter Grade	Maximum Diffusion Value
	bar	psi		
LifeTec™ PES-BN-A 0.45 µm	1.25	18	LifeTec™ PES-BN-A 0.45 µm	25 ml/min @ 1.0 bar (14.5 psi)

* The values are based on a mixture of 60% IPA / 40% water as wetting fluid at 25°C.

Integrity test to be done by Bubble Point or Forward Flow Test. For information on test equipment or test services, please contact your Donaldson Sales Engineer and visit our website at www.donaldsonprocessfilters.com.

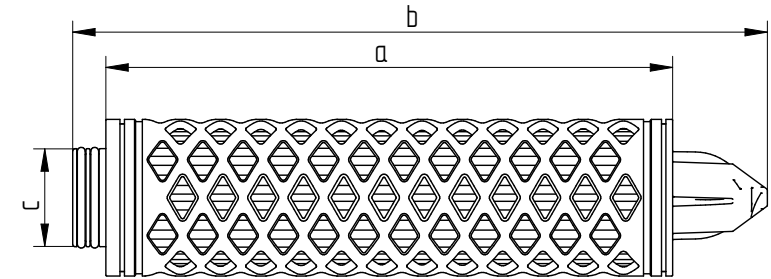
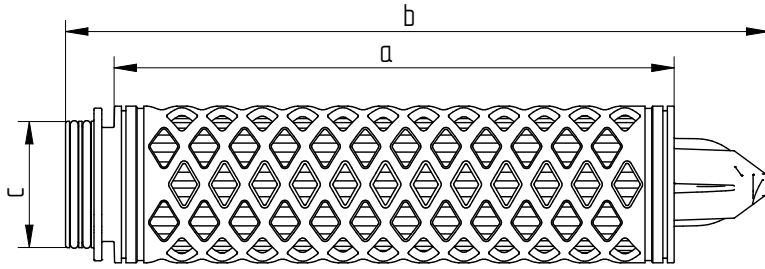
BACTERIA RETENTION RATES (according to HIMA challenge per ASTM)

Filter Grade	Microorganism	LRV / cm ²
LifeTec™ PES-BN-A 0.6 µm	<i>Saccharomyces cerevisiae</i>	> 7
LifeTec™ PES-BN-A 0.45 µm	<i>Pediococcus damnosus</i>	> 7
LifeTec™ PES-BN-A 0.45 µm	<i>Lactobacillus lindneri</i>	> 9

Filter Grade	0.45 µm (Absolute retention rate)			
Filtration Surface	0.74 m ² per 250 mm (10") element			
Maximum Differential Pressure	Operating Temperature		Differential Pressure	
	38° C	100° F	5.5 bar	80 psi
	66° C	150° F	4.1 bar	60 psi
	82° C	180° F	2.1 bar	30 psi
Cumulative Steaming Time*	121° C - 125° C (250° F - 257° F) for 30 minutes Saturated Steam (Forward Flow) up to 100 cycles			

* Figures are based on lab tests to evaluate steaming resistance. Filter elements need to be checked in actual use. Contact Donaldson for recommended Autoclaving/Steaming procedures.

DIMENSIONS



CODE 7 Connection							
Filter Size		Dimensions					
		a		b		c	
mm	in.	mm	in.	mm	in.	mm	in.
254	10	251	9.9	315	12.4	56	2.2
508	20	493	19.4	556	21.9	56	2.2
762	30	734	28.9	800	31.5	56	2.2
1016	40	978	38.5	1041	41.0	56	2.2

Code 7: 2 x 226 O-Rings, bayonet 2 locking tabs, locating fin, integrated reinforcement ring

CODE 8 Connection							
Filter Size		Dimensions					
		a		b		c	
mm	in.	mm	in.	mm	in.	mm	in.
254	10	254	10.0	310	12.2	43	1.7
508	20	495	19.5	554	21.8	43	1.7
762	30	739	29.1	795	31.3	43	1.7
1016	40	980	38.6	1036	40.8	43	1.7

Code 8: 2 x 222 O-Rings, plug connection, locating fin, integrated reinforcement ring



donaldson.com/process

Donaldson Company, Inc.
Minneapolis, MN

Contact us



Important Notice: Many factors beyond the control of Donaldson can affect the use and performance of Donaldson products in a particular application, including the conditions under which the product is used. Since these factors are uniquely within the user's knowledge and control, it is essential the user evaluate the products to determine whether the product is fit for the particular purpose and suitable for the user's application. All products, specifications, availability and data are subject to change without notice, and may vary by region or country.

F117021 ENG (01/24) PES-BN-A-Absolute-Membrane-Filter ©2024 Donaldson Co., Inc. All Rights Reserved. Donaldson and the color blue are marks of Donaldson Company, Inc. All other marks belong to their respective owners. (Contains Donaldson proprietary technology.)