



Food and Beverage

Ultipor N66 filter cartridges are specifically engineered for microbial stabilization of food and beverage products.

Description

Ultipor N66 filters incorporate pleated nylon 6,6 media into single open ended (SOE) cartridges to fit in sanitary filter housings. These elements provide reliable, economical and efficient microbial stabilization for a broad range of food and beverage applications.

Ultipor N66 filters are suitable for exposure to repeated hot water and in situ steam sanitization cycles for longer service life.

Features and Benefits

Features	Benefits
Hydrophilic media in multiple microbial retention ratings	- Consistent filtrate quality - Targeted microbial stabilization of beverages and ingredients - Easy to wet and integrity test
Cartridges resistant to numerous sanitization cycles produced with no adhesives or surfactants	- Process reliability - Cost effective filtration
Individually serialized cartridges	Full traceability

Quality

- Cartridges produced in a controlled environment
- Manufactured according to ISO 9001:2008 certified Quality Management System

Food Contact Compliance

Please refer to the Pall website <http://www.lennotech.com> for a Declaration of Compliance to specific National Legislation and/or Regional Regulatory requirements for food contact use.

Ultipor® N66 Filter Cartridges For Microbial Reduction and Retention



Typical Applications

Ultipor N66 filter cartridges with nylon and polyester hardware

Grades	Applications
NF, NL and NA	
NB and NK	Filtration of aqueous fluids (e.g. bottled water or ingredient solutions) Filtration of bulk alcoholic fluids (e.g. wine and beer) or aqueous fluids (e.g. ingredient solutions)

Materials of Construction

Filter Medium	
Support and Drainage	Polyester
Cage, Core	Nylon with integral polyester non-woven substrate
O-ring Seal	Polypropylene
For Part Numbers beginning with AB	
End Cap and Fin End	Ethylene Propylene Rubber or Polyester
Adaptor	Silicone Elastomer
For Part Numbers beginning with ABN	
End Cap and Fin End	
Adaptor	
	Unpigmented Nylon 6-10
	Unpigmented Nylon 6-10 with internal stainless steel reinforcing ring

Technical Information

Operating Characteristics in Compatible Fluids¹

For Part Numbers beginning with ABN_		
Maximum continuous operating temperature	80 °C (176 °F)	
Maximum Differential Pressure (forward)	Operating Temperature	
5.4 bard (80 psid)	50 °C (122 °F)	
4.0 bard (60 psid)	80 °C (176 °F)	
2.1 bard (30 psid)	90 °C (194 °F)	
300 mbard (4.4 psid)	140 °C (284 °F)	
For Part Numbers beginning with AB_		
Maximum continuous operating temperature	60 °C (140 °F)	
Maximum Differential Pressure (forward)	Operating Temperature	
5.4 bard (80 psid)	50 °C (122 °F)	
4.0 bard (60 psid)	80 °C (176 °F)	
300 mbard (4.4 psid)	140 °C (284 °F)	

¹ Compatible fluids are defined as those which do not swell, soften or attack any of the filter components.

Sterilization and Sanitization

For Part Numbers beginning with ABN_		
Method	Temperature	Cumulative Time ²
Hot water	80 - 85 °C (176 - 185 °F)	100 hours
Steam	110 °C (230 °F)	50 hours*
Steam	125 °C (257 °F)	16 hours*
Steam	140 °C (284 °F)	4 hours*
For Part Numbers beginning with AB_		
Method	Temperature	Cumulative Time
Steam	125 °C (257 °F)	16 hours*
Steam	140 °C (284 °F)	4 hours*

² Measured under laboratory test conditions. The actual cumulative time depends on the process conditions. For applications requiring Sterilization or Sanitization Pall recommends the use of Code 7 adaptors to ensure filter sealing after cooling. Cartridges should be cooled to system operating temperature prior to use. Contact Pall for recommended procedures.

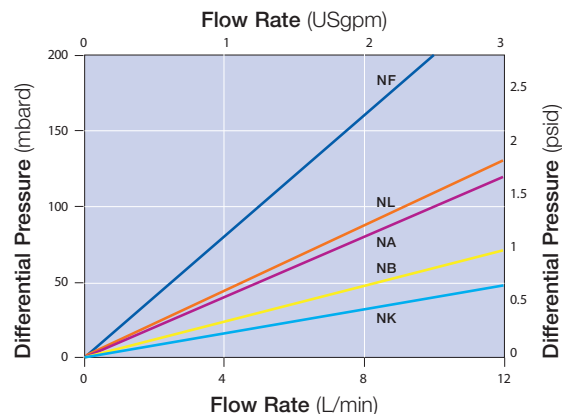
* Where indicated one hour sanitization cycles were utilized.

Microbial Removal Rating in Liquid

The NF grade (2 media layers) provides a sterile effluent when challenged with *Brevundimonas diminuta* (ATCC19146) at a level of >10⁷ CFU per cm² of effective filtration area. Microbial reduction data for specific applications may be available for other media grades, please contact your Pall representative for application specific information.

NA, NF and NL grades are recommended for filtration of water and aqueous fluids. NB and NK grades are recommended for filtration of bulk alcoholic beverages like wine and beer. All grades may be suitable for liquid ingredient filtration. Please contact Pall for assembly sizing based on your specific application.

Typical Flow Rates³



³ Typical initial clean media differential pressure (ΔP) per 250 mm (10") cartridge for water at 20 °C (68 °F); viscosity 1 centipoise. For 508 mm, 762 mm and 1016 mm configurations divide the differential pressure by 2, 3, and 4 respectively.

Ordering Information

This information is a guide to the part number structure and possible options. For availability of specific options and housing details, please contact Pall.

Part Number: AB	Table 1	Table 2	Table 3	Table 4	W	Table 6
AB N	Table 2	Table 3	7	W	Table 5	Table 6

Table 1 : Hardware Material

Code	Description
N*	Unpigmented Nylon 6-10
Blank	Polyester

* Available only in Code 7 (Table 4)

Table 2 : Nominal Length

Code	Length
1	254 mm (10")
2	508 mm (20")
3	762 mm (30")
4	1016 mm (40")

Table 3 : Microbial Removal Rating

Code	Microbial removal rating (μ m) in Liquids	Membrane Layers
NA	0.2	1
NF	0.2	2
NB	0.45	1
NL	0.45	2
NK	0.65	1

Table 4 : Adaptor

Code	Description
3	SOE – single open end with flat closed end and external 222 O-rings, in polyester only
7	SOE – single open end with fin end, 2 locking tabs and external 226 O-rings
8	SOE – single open end with fin end and external 222 O-rings, in polyester only
28	SOE – single open end with fin end, 3 locking tabs and external 222 O-rings, in polyester only

(Code 3, 7, 8 and 28 may be available in selected grades, confirm code availability with your Pall representative)

Table 5 : Application

Code	Description
B*	For beer applications
Blank	For all other applications

* Available in NB and NK only

Table 6 : O-ring Seal

Code	Description
H4	Silicone Elastomer
J	Ethylene Propylene Rubber



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Please contact Pall Corporation to verify that the product conforms to your national legislation and/or regional regulatory requirements for water and food contact use.

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