

# BorsoCapsule

VAN BORSELEN FILTERS



## Biological Grade Membrane Filter Capsules

A range of microbially rated cartridge filters from Van Borselen Filters, featuring the latest developments in membrane technology, **BorsoCapsule** filter capsules are manufactured for use in small scale production units for the removal of contaminant particulates, microelectronic industries and small-scale biotechnology applications.

**BorsoCapsule** filter capsules are available with a choice of membrane and pleated materials including PES, Nylon 6.6, Polypropylene, PTFE and Micro Glass Fibre.

In addition, no adhesive used in manufacturing as all bonding are thermally welded.

All **BorsoCapsule** filter membrane capsules are microbial rated and integrity tested prior to packaging and despatch.



### Features and Benefits:

- **Clean room environment**

**BorsoCapsule** filter capsules are manufactured in a clean-room environment.

- **Will not hydrolyse**

**BorsoCapsule** filter capsules PES and Nylon 6.6 media are absolute microbial removal rated membranes

- **Suitable for steam sterilising**

**BorsoCapsule** filter capsules cartridges incorporating a stainless steel support ring can be subjected to steam sterilisation at 121°C.

- **Fully disposable capsules**

**BorsoCapsule** filter capsules are fully disposable filter capsules.

the ease of installation Reduced downtime

Minimum exposure of operatives to hazardous waste.

Minimises need for excessive pre-flushing prior to use.

- **Controlled manufacturing environment**

**BorsoCapsule** cartridges are manufactured in an ISO Cleanroom environment by fully gownned staff, minimising the risk of contamination.





# Specifications

## Materials of Manufacture

Filter membrane:	Polyethersulphone Nylon 6.6
Capsule material:	Polypropylene

## Cartridge Dimensions

Length:	1.5"
	2.5"
	5"
	10"

## Pore sizes:

0.01µm,	1.0µm,
0.1µm,	5.0µm,
0.2µm,	10µm,
0.45µm,	20µm,
0.65µm,	40µm,
0.80µm,	

## Maximum Differential Pressure

Max. forward differential pressure:	4.0 bar at 60°C
Max. operating temperature:	60°C
Max. pressure at max. operating temp.:	2.0 bar

## Sterilisation

Steam sterilised at 121°C for 60 minutes

## Extractables

Minimum total extractables. Please refer to the [BorsoCapsule](#) Validation Guide.

## Foodgrade approved

FDA 21 CFR 177.1520  
FDA 21 CFR 177.2600  
EC 10/2011

## Cartridge Construction

[BorsoCapsule](#) filter capsules are manufactured from a multilayer combination of irrigation mesh, filter membrane, membrane support and drainage material.

[BorsoCapsule](#) filter capsules have optimal pleat geometry to maximise the available filtration area and to ensure an efficient flow through the cartridges.

An all thermal fusion bonded assembly process eliminates the use of resins and binders. Manufactured as standard with injection moulded polypropylene inner and outer supports, [BorsoCapsule](#) filter capsules are designed with the strength necessary to withstand thermal stresses encountered during steam sterilisation and subsequent cooling. They can be steam sterilised and will retain total integrity following steaming at 121°C.

All components used in the construction of [BorsoCapsule](#) filter capsules are FDA approved to 21CFR and meet or exceed the latest EC Directives for Food Contact.



# Applications

**BorsoCapsule** filter capsules are suitable for the sub-micronic filtration of a wide range of process liquids, in applications where the characteristics of a naturally hydrophilic membrane are required.

- **Biopharmaceuticals**

For the sub-micronic filtration of ingredients, intermediates, make-up waters and final products, including bioburden reduction and clarification.

- **Ophthalmic solutions**

Shelf life assured through the low adsorption of preservatives, such as Benzalkonium Chloride (BAK).

- **Electronics and semiconductors**

For the sub-micronic filtration of process water and chemicals, including solvents, developers and photoresists. Applications typically include central water plant treatment and critical 'wet bench' point of use filtration.

- **Fine chemicals**

For the bioburden reduction and clarification of a wide range of process chemicals.

- **Beverages**

For the bioburden reduction and clarification of various beverages, including the reduction of yeast and spoilage organisms. Low colour removal is an additional advantage.

- **Pure water supply**

For use in ultrapure water treatment systems (including Water-For-Injection), as either a sterilisation filter or for bioburden reduction





# Additional Information

## Range

Van Borselen Filters Supplies a full range of filtration products: e.g.:  
Filtercartridges (Meltblown/ Membranes/ Activated Carbon)  
Filter housings, Filterbags, Lenticular Module Filters, Self Cleaning  
Filters, Filter Sheets, Sieving Machines, Porous Sintered Metal,  
Oil skimmers, Strainers and many more..

## Material Conformity and Validation

The bio-safety of all materials used in the manufacture of **BorsoCapsules** cartridges is assured by FDA approval to Title 21CFR.177. and EC 10/2011

## Chemical Compatibility

The **BorsoCapsule** materials of construction are compatible with a wide range of chemicals and solvents, however care must be taken to select the appropriate seal material. Advice on chemical compatibility is available. Since operating conditions vary considerably between applications, verification by the end user is recommended.

## Quality control

All our filters are fully traceable and manufactured under clean room conditions.

## Engineering capacities

One of our strengths is developing filter vessels for critical applications in the chemical industry.

We have a wide experience in supplying filter vessels, like Duplex (UNS S31803), Super-Duplex (UNS S32750/60), Titanium, RvS316L, CS (optionally with a coating or lining).

Our filter vessels comply with the necessary design codes (ASME VIII, EN13445, U-stamp and PD5500) and comply to ATEX and PED 97/23/EC standards. Both liquids and gases PED classes I, II, III, IV, all modules



## VAN BORSELEN FILTERS BV

Argonstraat 66  
2718SN Zoetermeer  
Po box 3  
2700 AA Zoetermeer

Telefoon +31 (0)79 3412314  
Telefax +31 (0)79 3412892  
Email: [info@vanborselen.nl](mailto:info@vanborselen.nl)  
Web: [www.vanborselen.nl](http://www.vanborselen.nl)

