



REUSABLE STERILIZATION CONTAINER FILTERS

Reduce waste while decreasing Hospital-Acquired Infections (HAIs) with POREX Virtek® PTFE filters

Many sterilization containers currently use disposable filters or require the wrapping of instruments with a sterile wrap (often referred to as “blue wrap”) prior to placing into an autoclave for sterilization. However, the single-use non-woven, paper, or cloth materials used for venting and filtration in sterilization containers are easily wrinkled or torn and are subject to human error each time that they are replaced. This undermines the performance and reliability of the sterilization container since each cycle needs a new filter that must be inserted correctly for the container to safely sterilize the instruments. These disposable filters and “blue-wrap” also are a sustainability concern, as both need to be disposed of after use in a medically approved way. Each filter or wrap must maintain a certain level of bacterial filtration efficiency (BFE) and viral filtration efficiency (VFE) so the instruments remain sterile from microbes after autoclaving.

An Innovative Solution

Reusable filters made from POREX Virtek® PTFE membrane are a “fit and forget” solution that can last thousands of cycles. By switching to reusable filters, your sterilization container can ensure more reliable sterilization for each cycle, since the material is robust and does not have to be replaced each time by an individual. This solution also enables you to promote sustainability and save money.

Key Benefits

Multi-use

- No need for single-use disposable filters (cost and disposal savings)
- No human error – reduce likelihood of improperly installed filters resulting in non-sterile equipment
- Saves time and labor since units require less service

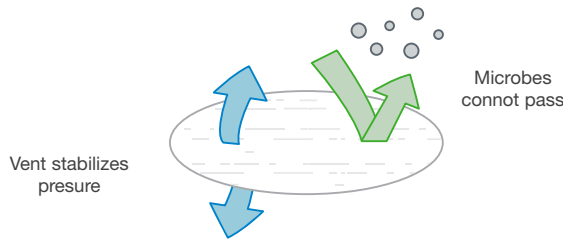
Tough and durable with naturally hydrophobic surface

- Very low chance that filter can be ripped or torn, ensuring the container contents remain sterile
- Higher BFE rating versus paper and non-woven alternatives
- Naturally resists water so instruments remain dry

Printable surface

- Imprint date or other useful information directly onto filter
- Incorporate logos to enhance container branding and promotion and reduce chance of low-cost alternatives
- Ink does not penetrate through the material, maintaining sterility

How the Filter Works



- Acts as a vent to allow **pressure equalization** during sterilization
- Acts as a **protective barrier against microbes** entering the container during transit and storage
- Filter is **critical to the performance** of the sterilization container

Technical Specifications

POREX Virtek Medical PTFE Sterilization Media					
Material	Thickness, mm Nominal	Airflow, l/hr/cm ² Typical at 70 mbar	BFE % Nominal	VFE % Nominal	WEP ⁽¹⁾ , mbar Typical
MA05	0.25	34 (min 16)	>99.9999	⁽²⁾	520 (min 350)
MA10	0.65	35 (min 25)	>99.999	>99.999	300 (min 200)
MA15	1.0	30 (min 14)	>99.9999	⁽²⁾	350 (min 200)

Complete testing data and information is available upon request.

⁽¹⁾ WEP = Water entry pressure

⁽²⁾ Not tested but similar results to MA10 expected

Competitive Comparison

Non-Reusable Filters	POREX Virtek PTFE Filters
<ul style="list-style-type: none"> • Thin, soft, fragile structure is prone to damage and resulting contamination • Susceptible to incorrect, faulty installation • Lack of reliability in materials places patient and healthcare professional's safety at risk • Single-use nature of materials creates enormous waste • Replacing filter after each use decreases productivity and increases cost 	<ul style="list-style-type: none"> • Robust, durable structure prevents tears, rips and holes, protecting against contamination • Hydrophobic, chemical-resistant, PFOA-free material that offers high BFE for superior barrier protection and maintains structural integrity • Fit-and-forget design can be used for thousands of autoclave sterilization cycles improves efficiency and reduces labor costs (for both installation and disposal) • Long-term reusability of material reduces waste, offering a more sustainable alternative

Getting Started with Porex

When initiating the process to design a reusable sterilization container filter with POREX Virtek® PTFE, consider the following questions:

- Do you need bacterial barrier during storage?
- How often will it be handled?
- Do you need to record sterilization / installation date?
- Do you need custom sizes and shapes?
- Does your membrane need support?
- Would you like to add logos / other info?



View additional resources - including our videos and tech brief – and request a free sample



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