SARTORIUS

Product Datasheet

Microsart® e.motion Membrane Filters



Benefits

- Reliable colony count
- Various filter colors and distinctly visible gridlines provide the best contrast with the colonies
- Increased efficiency
- New Big Packs allow full shift working without reloading
- Visible traceability
- All relevant information on each filter box and each membrane filter cell

Product Information

Sartorius membrane filters not only feature the widest selection, three different filter colors, two different diameters and a variety of pore sizes. The various filter colors and distinctly visible gridlines provide the best contrast with the colonies for easy and reliable quantification and identification. The membrane filter band specially designed for the Microsart® e.motion dispenser can be conveniently inserted and easily changed, as needed.

Sartorius' experience in the design and continuous enhancement of membrane filters are also reflected in the results they deliver:

- High recovery rates of microorganisms
- The morphology and color of microorganisms be clearly identified
- Extremely fast filtration rate
- Unique grid lines make counting easy
- Compliance with the currently valid international standards, regulations and guidelines

For complete traceability, the membrane filter type, diameter, lot number and a sequential number (from 250 to 1) are printed on the paper of every membrane cell. The membrane filters' quality and compliance with current standards and regulations, such as ISO 7704 for all 0.45 µm membrane filters, are confirmed by the certificate supplied inside each box of membrane filters.

High Throughput
Your time is limited when you have to handle highly repetitive processes and heavy workloads day by day. In this case an efficient and ergonomic workflow is needed. The new Big Packs with a capacity of 250 membrane filters allow full shift working without the necessity of reloading the Microsart® e.motion dispenser. For efficient workflows and less interruptions!

Benefit from Sartorius' long-standing expertise in microbiological quality control and choose from a wide range of dedicated products for microbial enumeration – and more. Our comprehensive selection of membrane filters, filtration units, filtration systems and culture media will help you reach the highest levels of safety with reproducible, reliable results for in-process and final release testing – while streamlining your workflow and simplifying your testing procedures.

Technical Data

Microsart® e.motion Membrane Filter
Design
The membrane filters have a diameter of 47 or 50 mm, and are white, green or gray, and gridded. The grid divides the filter area into 130 squares; each measures 3.1 × 3.1 mm.

Sterilization
Gamma irradiation

Growth Test acc. to ISO 7704
Bacteria recovery tests performed with Sartorius membrane filters have shown that the growth and development of sensitive bacteria are not adversely affected or inhibited by the grid lines, the sterilization process or any extractable substances in the membrane.

Sterility Test
No growth

Thickness
acc. to DIN 53105, 115 – 145 µm

Thermal Resistance
130 °C max.

Chemical Compatibility
Aqueous solutions (pH 4 – 8), hydrocarbons and various other organic solvents.

In addition, the certificate included in each package of Sartorius membrane filters confirms that they have been manufactured by applying the latest GMP standards. The development, production and distribution of these filters are subject to our stringent quality management system that has been certified for compliance with DIN | ISO 9001.

Typical Performance Data of Various Membrane Filter Types

Pore size		0.2 µm[1)]	0.45 µm[2)]	0.45 µm[2)] High Flow	0.65 µm
Water flow rate per cm² at 1 bar acc. to DIN 58355	in mL/min	20	70	100	130
Retention of coliforms	in %	100	100	100	n.a.
Recovery rate acc. to ISO 7704 as a batch release criterion	in %	≥ 90	≥ 90	≥ 90	≥ 90

[1]The pore size was determined by quantitative retention of Brevundimonas diminuta according to the ASTM Document F 838-83 "Standard test method for determining bacterial retention of membrane filters utilized for liquid filtration."
[2]The pore size was determined by quantitative retention of Serratia marcescens according to the current "Standard Methods for Water and Waste Water."

Ordering Information

Order No.	Pore Size	Membrane Filter Color | Grid Color	Diameter	Qty. per Pkg.
Big Packs				
114H6Z-47----SJR	0.45 µm High-Flow	White | Black	47mm	4 × 250
130H6Z-47----SJR	0.45 µm High-Flow	Gray* | White	47 mm	4 × 250
Membrane Filters, Cellulose Mixed Ester (Cellulose Nitrate)				
11407Z-47----SCM	0.2 µm	White | Black	47 mm	3 × 100
11407Z-50----SCM	0.2 µm	White | Black	50 mm	3 × 100
114H6Z-47----SCM	0.45 µm High-Flow	White | Black	47 mm	3 × 100
114H6Z-50----SCM	0.45 µm High-Flow	White | Black	50 mm	3 × 100
11406Z-47----SCM	0.45 µm	White | Black	47 mm	3 × 100
11406Z-50----SCM	0.45 µm	White | Black	50 mm	3 × 100
11404Z-50----SCM	0.8 µm	White | Black	50 mm	3 × 100
11403Z-47----SCM	1.2 µm	White | Black	47 mm	3 × 100
11403Z-50----SCM	1.2 µm	White | Black	50 mm	3 × 100
11402Z-47----SCM	3 µm	White | Black	47 mm	3 × 100
139H6Z-47----SCM	0.45 µm High-Flow	White | Green	47 mm	3 × 100
13906Z-47----SCM	0.45 µm	White | Green	47 mm	3 × 100
13906Z-50----SCM	0.45 µm	White | Green	50 mm	3 × 100
13806Z-47----SCM	0.45 µm	Green | Dark green	47 mm	3 × 100
13806Z-50----SCM	0.45 µm	Green | Dark green	50 mm	3 × 100
130H6Z-47----SCM	0.45 µm High-Flow	Gray* | White	47 mm	3 × 100
130H6Z-50----SCM	0.45 µm High-Flow	Gray* | White	50 mm	3 × 100
13006Z-47----SCM	0.45 µm	Gray* | White	47 mm	3 × 100
13006Z-50----SCM	0.45 µm	Gray* | White	50 mm	3 × 100
13005Z-47----SCM	0.65 µm	Gray* | White	47 mm	3 × 100
13005Z-50----SCM	0.65 µm	Gray* | White	50 mm	3 × 100
13004Z-47----SCM	0.8 µm	Gray* | White	47 mm	3 × 100
Membrane Filters, Other Materials				
15407Z-47----SCM	0.2 µm Polyethersulfone	White	47 mm	3 × 100
15406Z-47----SCM	0.45 µm Polyethersulfone	White	47 mm	3 × 100
18406Z-50----SCM	0.45 µm Regenerated Cellulose	White	50 mm	3 × 100
28006Z-47----SCM	0.45 µm PVDF	White	47 mm	3 × 100

Dispenser	
Order No.	Description
16713----BO	Microsart® e.motion dispenser with integrated battery and power supply
16713----PS	Microsart® e.motion dispenser with power supply only

* Gray membrane filters turn black when wet

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