

Filtration Products



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Membrane filtration is one kind of physical filtration process where a contaminated fluid is passed through a special pore size membrane to separate micro-organisms and suspended particles from process liquid or gas. The typical pore size used for micro-filtration ranges from about 0.1 to 10um.

Membrane filters or membranes are microporous films with specific pore size ratings. Membranes retain particles and microorganisms that exceed their pore ratings by acting as a physical barrier and capturing such particles on the surface of the membrane.

Iris Analytical offers membrane discs in diameters from 13mm to 293mm and materials including PES , PVDF , PTFE , MCE , Nylon , PP , CA CN and GF membrane filters.

Applications

- General clean and filtration
- Sample Preparation
- Environmental Monitoring and Analysis
- Filtration of Aqueous and Organic Solutions
- Fluid Monitoring
- Pharmaceutical Products Analysis
- Chromatography and Mass Spec Sample Preparation
- Venting and Gas Filtration

Membrane Type	Pore Size(um)	Diameter(mm)
PES	0.1-1.0	13, 25,37,47,90,142,293
MCE	0.1-8.0	13,25,37,47,90,142, 293
NYLON	0.1- 10.0	13,25,37,47,90,142,293
PVDF	0.1-0.45	13,25,37,47,90,142,293
PTFE	0.1 -5.0	13,25,37,47,90,142,293
PP	0.22-20.0	13,37,47,90,125,142,293
CA	0.22-8.0	13,25,37,47,90,142,293
Nylon Mesh	20-180	25,47,90, 30cm×3m
PC	0.1-8.0	13,25,37,47,90,142

Mixed Cellulose Esters (MCE) Membrane Filter

Mixed Cellulose Ester (MCE) membrane filters are composed of cellulose acetate and cellulose nitrate. Because MCE membrane is biologically inert, it's widely used in analytical and research applications. MCE membrane filter is characterized by smoother and more uniform surface than pure nitrocellulose filter. Also, the color contrast provided by the filter surface facilitates particle detection and minimizes eye fatigue.



Many microbiological techniques include colony counting after incubation as the standard method of quantification. Gridded filters have clearly defined grid lines spaced at 3.1 mm intervals. The special ink used is nontoxic and completely free from bacterial growth inhibitors. White gridded disks are designed for the recovery and retention of E. Coli bacteria in water/waste-water analysis as well as other microbiological tests. Black mixed cellulose esters(MCE) are available plain for automatic colony counting applications, as well as gridded to assist in manual counting procedures. Black MCE membranes provide contrast between residue or cell colors and the filter without having to counter-stain the membrane.

Application	Color	Pore Size(μm)
Microdialysis of DNA and proteins	White	0.1
Sterilizing filtration, bioassays	White	0.22
Sterilizing filtration, air monitoring, particle monitoring, particle removal, bioassays	White	0.3
Clarification of aqueous solutions, particle removal and analysis, microbiology analysis	White	0.45
Fluorescent bacteriological assays, particle monitoring, bioassays	Black	0.45
Particle monitoring, particle removal, dairy microbiology, retention of yeasts, molds and algae	White	0.65
Air monitoring, particle monitoring, particle removal, bioassays	White	0.8
Fluorescent assays, particle monitoring, air monitoring	Black	0.8
Clarification of aqueous solutions	White	1
QC of fluid holding tanks, fluid monitoring, air monitoring, particle collection and analysis	White	3
QC of fluid holding tanks, fluid monitoring, particle collection and analysis	White	5
QC of fluid holding tanks, fluid monitoring, air monitoring, particle collection and analysis	White	8

