# **Silver Membrane Filters**

Specified for X-ray Diffraction Analysis

SKC silver membrane filters are made of 99.97% pure inorganic metallic silver. The many desirable properties of silver membranes make them suitable for a wide range of applications.

The orientation of a silver membrane filter is important. Each side of the silver membrane filter is different. One side appears shinier than the other side does. Use the shinier side for scanning electron microscopy (SEM) and the duller of the two sides for all other filtration applications and analytical work, including X-ray diffraction (XRD).



- Chemically inert and resistant to high temperatures
  - Sample aggressive contaminants
  - Autoclave repeatedly without loss of performance
- Bacteriostatic
- Uniform porosity and thickness
- Ideal for x-ray diffraction and other analyses
  - Flat, smooth surface
  - NIOSH methods for x-ray diffraction analysis of crystalline silica, lead sulfide, boron carbide, and chrysotile asbestos
  - Organic materials by a variety of analytical methods
- Hydrophilic and inorganic
- Environmentally friendly recyclable
  Can be cleaned and reused
- No filters to contaminate sample
- Indefinite shelf-life





Air Sampling Solutions & Expertise skcinc.com

## Specified for X-ray Diffraction Analysis

#### **Performance Profile**

Membrane Material:	99.97% pure metallic silver	
Characteristics:	Conductive, excellent chemical resistance, inert, reusable	
Pore Sizes Available:	0.2, 0.45, 0.8, 1.2, 3.0, and 5.0 μm	
Diameters Available:	13, 25, 37, and 47 mm	
Thickness:	0.002 inch/50 µm	
Operational Temperature Range:	Cryogenic to 1022 F (550 C)	
Retention:	Absolute from 0.2 to 5 $\mu\text{m}$	
Cleaning:	Clean immediately after each use; handle carefully to avoid punctures or tears.	
Ignition Cleaning:	Heat in laboratory muffle furnace for approximately 30 minutes.	
Chemical Cleaning:	Immerse in strong alkaline solution, solvent, or acid (except nitric acid, sulfuric acid, or cyanide solution).	
Combination Cleaning:	Combine chemical and ignition cleaning.	
Ultrasonic Cleaning: Use low-intensity ultrasonics.		
Plasma Etching/ Cleaning:	Use oxygen plasma etcher/ asher.	
Shelf-life: Unopened:	Indefinite	
Opened Packages:	Silver membranes can tarnish if exposed to chemicals in the air. This is cosmetic and will not affect filtration properties. For long-term storage after opening, an inexpensive vacuum desiccator cabinet is	

#### **SKC Silver Membrane Filter Applications**

- Industrial hygiene sampling for airborne contaminants in foundries, glass plants, quarries, mines, and ceramic manufacturing
- NIOSH Method 6011 Bromine and Chlorine
- NIOSH 7500 and 7501 Silica (crystalline and amorphous, respectively)
- NIOSH 7504 Vanadium Oxide
- NIOSH 7505 Lead Sulfide
- NIOSH 7506 Boron Carbide
- NIOSH 9000 Asbestos, chrysotile
- OSHA Method ID142 Quartz and Cristobalite
- Respirable Combustible Dust (RCD) sampling and analysis including diesel particulate matter (DPM), evaporated hydraulic fluids, fuel oils, and compressed air lubricants
- · Dopant gases for semiconductor manufacturing
- · Steam or air sterilization, autoclavable
- · High-temperature venting
- Chlorine monitoring in pulp and paper industry
- · OSHA coal tar pitch volatiles
- · Fly ash sampling
- Bacteria sampling

### **Ordering Information**

Diameter (mm)	Pore Size (µm)	Support Pad Incl.	Cat. No.	Qty.
25	0.45	No	225-1802	50
25	0.8	No	225-1803	50
37	0.8	No	225-1801	25
47	0.8	No	225-1804	25

Other pore sizes/diameters available as a custom order. Call SKC for more information.

Preloaded Coated Silver Membrane Filters	Cat. No.
PTFE pre-filter and porous plastic support, specially	225-9006
cleaned silver membrane and porous plastic support	
loaded into 3-piece 25-mm cassette for sampling bromine	
or chlorine using NIOSH Method 6011, pk/5	

#### SKC Limited Warranty and Return Policy

SKC products are subject to the SKC Limited Warranty and Return Policy, which provides SKC's sole liability and the buyer's exclusive remedy. To view the complete SKC Limited Warranty and Return Policy, go to http://www.skcinc.com/warranty.



recommended.