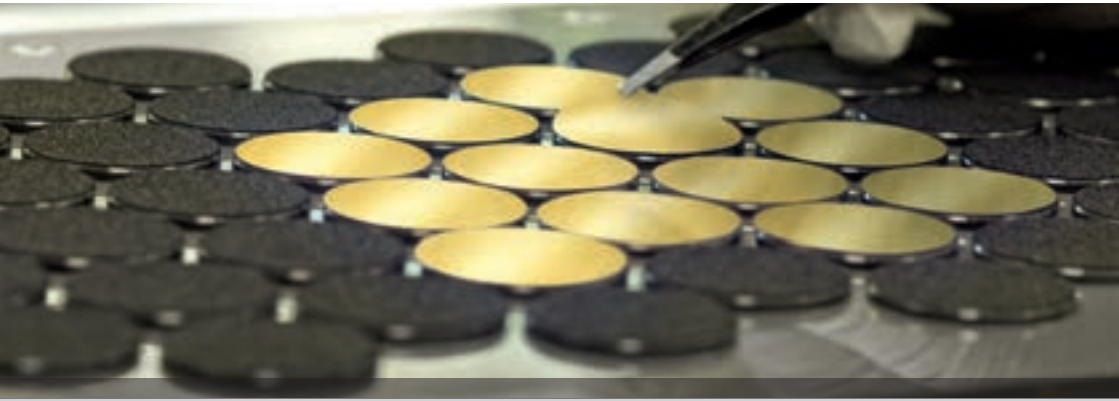
Gold-coated membranes for the highest demands in everyday laboratory use



Membranes for the highest demands in everyday laboratory

i3 Membrane offers highly reliable, specially coated track-etched filters made of different polymer compounds for all applications in the field of particle analysis.

Ultra-thin metal layers of gold, titanium and other precious metals on high-quality polymer membranes enable the electrical conductivity of the membrane surfaces. They provide optimum reflection in FTIR, Raman and form a suitable conductive substrate for imaging in EDX/WDX.

The standardized membranes are ideally suited for use in environmental analysis. The here focus is on asbestos analysis (air and material samples) as well as the analysis of water and soil samples of every kind.

In addition, they are used in microplastics analysis for the F&B sector and technical cleanliness, as well as in particle analysis of liquid pharmaceuticals and auxiliary chemicals.

The particularly smooth gold surface of the track-etched membranes is also valued in the filtration of microplastics analysis. Particles from the environment and from food can be detected and analyzed quickly and easily with the help of the nuclear pore filters.

i3 Membrane - the right membrane for every application

Contents

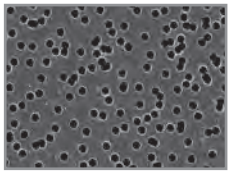
i3 TrackPor P **p. 4**
Gold-coated
polyester membrane

i3 TrackPor R **p. 6**
Gold-coated
polyester membrane
in an aluminum ring

i3 TrackPor **p. 8**
Gold-coated
polycarbonate membrane

i3 TrackPor M **p. 10**
Monitoring device
for asbestos analysis

i3 TrackPor P Gold-coated polyester membrane



Gold-coated i3 TrackPor P membrane is used for identifying and characterizing micro- and nanoparticles in pharmaceutical liquid, technical cleanliness, cosmetics and food. It delivers an optimal reflection in Fourier Transform Infrared (FTIR) microscopy and Raman spectroscopy and form a suitable, conductive surface for imaging in scanning electron microscopy (EDX/WDX). This track-etched membrane is distinguished by its particularly smooth and even surface.The polyester membrane with a gold-coating of 100/0 nm permits filtration of all organic and inorganic particles and is stable in a liquid medium for longer filtration period.

FEATURES

Particle analysis by SEM/EDX, FTIR microscopy and Raman spectroscopy

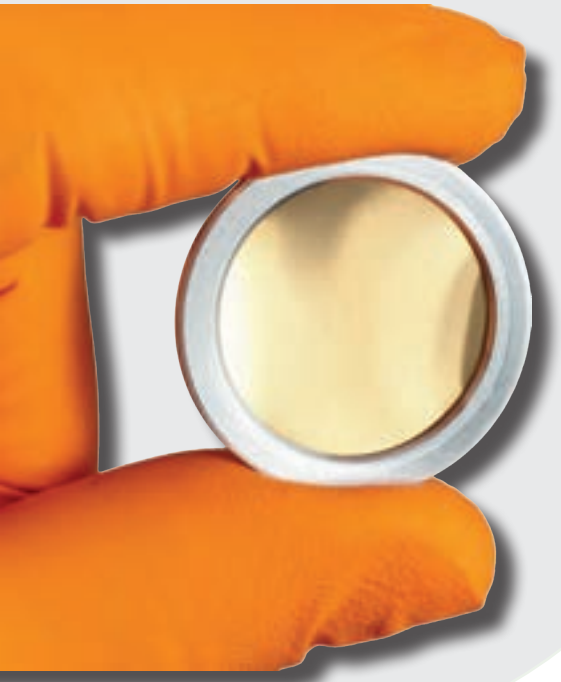
Identification and characterization of micro- and nanoparticles

Testing for technical cleanliness in accordance with ISO 16232 and VDA 19

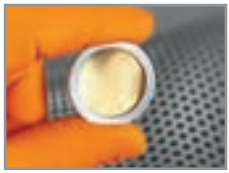
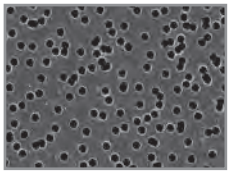
Stable in liquid medium for longer filtration periods

High contrast in SEM, FTIR microscopy and Raman spectroscopy

Gold-coated on top side (100/0 nm)



i3 TrackPor P Gold-coated polyester membrane in ring

Gold-coated i3 TrackPor R membrane is used for identifying and characterizing micro- and nanoparticles in pharmaceutical liquids, technical cleanliness, cosmetics and food. It is mounted in an aluminium ring and delivers an optimal reflection in Fourier Transform Infrared (FTIR) microscopy and Raman spectroscopy and form a suitable, conductive surface for imaging in scanning electron microscopy (EDX/WDX). This track-etched membrane is distinguished by its particularly smooth and even surface. The polyester membrane with a gold-coating of 100/0 nmpermits filtration of all organic and inorganic particles and is stable in a liquid medium for longer filtration period.

FEATURES

Particle analysis by SEM/EDX, FTIR microscopy and Raman spectroscopy

Identification and characterization of micro- and nanoparticles

Testing for technical cleanliness in accordance with ISO 16232 and VDA 19

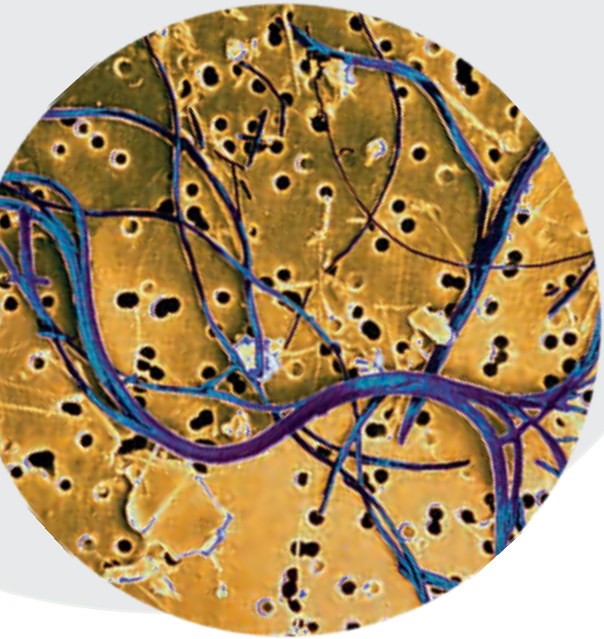
Stable in liquid medium for longer filtration periods

High contrast in SEM, FTIR microscopy and Raman spectroscopy

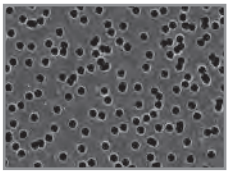
Gold-coated on top side (100/0 nm)

i3 TrackPor P membrane mounted in an aluminum ring (Ø 30 mm)

Individually packed in mini petri slides



i3 TrackPor Gold-coated polycarbonate membrane



The gold-coated track-etched membrane made of polycarbonate allow almost 100 percent surface filtration. The core pore filter is particularly suitable for particle analysis. This includes measurements of indoor and outdoor air on inorganic fibers, such as asbestos, in accordance with the VDI guidelines. Measurements of dusts and powders can also be carried out easily with the core pore filter. The i3 TrackPor membrane is also used for asbestos analysis of plaster, fillers and paints. Due to the very flat surface and the tunnel-shaped pores, the particles remain on the smooth surface of the i3 TrackPor membrane and can be analyzed microscopically.

FEATURES

Particle analysis by SEM/EDX

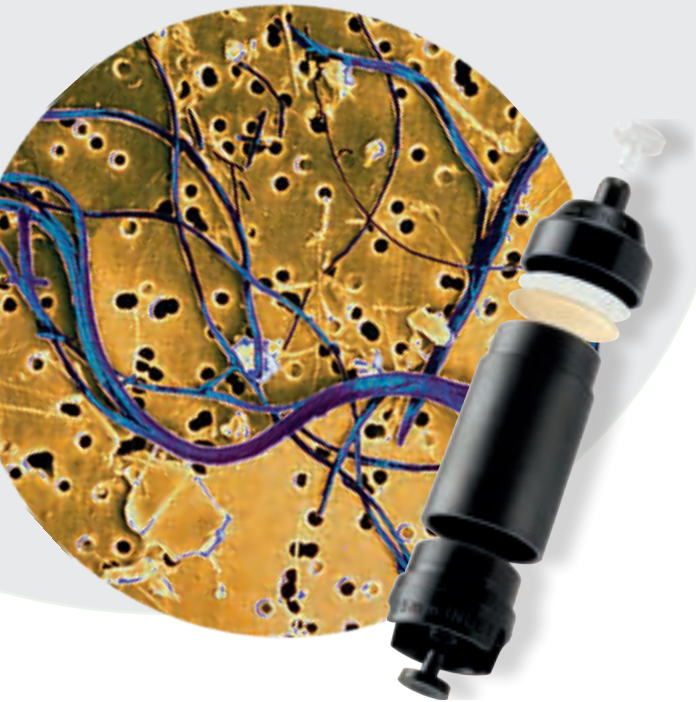
Testing for technical cleanliness

Identification of fibrous particles such as asbestos (ISO 14966, VDI 3492, VDI 3877, VDI 3866, VDI 3861, BIA 7487)

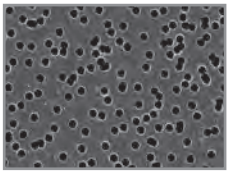
Counting of nano particles

High contrast in SEM

Gold-coated on both sides (40/20 nm)



i3 TrackPor M Asbestos air monitoring cassette



i3 TrackPor M is a single-use monitoring device for asbestos analysis. This ready-to-use device has a gold-coated polycarbonate membrane (0.8 µm and a diameter of 25 mm) which makes it easier to investigate asbestos particles in ambient air. To measure the amount of respirable asbestos fibers in the air, particle measurement is carried out as specified by VDI guideline 3492. This involves attaching a monitoring device with a filter membrane to a sampling device. The air is then sucked through the monitoring device as specified. Asbestos particles settle on the i3 TrackPor membrane. Afterwards, the membrane is removed from the single-use monitoring device and the dust lying on it is burnt. The asbestos fibers can now be counted under a scanning electron microscope (SEM).

FEATURES

Effective asbestos air sampling

Identification of fibrous particles such as asbestos (ISO 14966, VDI 3492, VDI 3861)

Counting of nano particles

Particles remain on the membrane surface and may well be analysed by SEM

i3 TrackPor M contains an i3 TrackPor membrane (pore size 0.8 µm, gold-coating 40/20 nm, diameter 25 mm) and support layer

Gold-coated on both sides (40/20 nm)

Cassette of conductive Polypropylene

Your Companion

Life Science Filtration

i3 Membrane GmbH
Christoph-Seydel-Str. 1
DE-01454 Radeberg
Germany

www.i3membrane.de
info@i3membrane.de
Phone: +49 (0)40-2576748-0
Fax: +49 (0)40-2576748-48

Certification of the quality management system according to DIN EN ISO 9001:2015

IMAGE_Lab/Pharma_EN_V01/JUNE2022