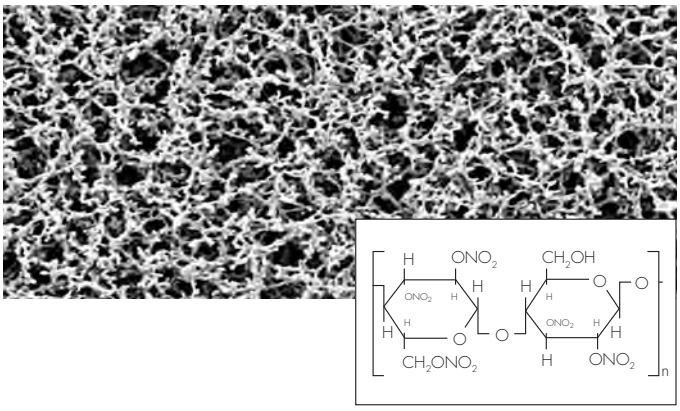
3.1 Cellulose Nitrate Membranes
Type 11407; White, Black Grid, 0.2 µm



Description

Gridded cellulose nitrate filter material is the optimal membrane filter for the microbiological detection of bacteria. The membrane filters with pore size 0.2 µm also allow complete retention and reliable recovery of extremely small water-borne microbes in pharmaceutical applications.

Color
White with black grid

Material
Cellulose nitrate (cellulose ester)

Reaction to Water
Hydrophilic

Pore Size (Nominal)
0.2 µm

Structure
Symmetric

Applications and Features

Typical Applications
Detection of the total bacteria count in water for pharmaceutical applications.

Special Features
– Fine, uniform pore structure
– High, non-specific adsorption.

Technical Advantages
Provides optimal growth characteristics for microorganisms and absolute retention of all bacteria.

Typical Performance

Non-specific Adsoption
The non-specific adsorption decreases with increasing pore size, see example for γ-globulin.

Chemical Compatibility
Compatible with aqueous solutions (pH 4–8), hydrocarbons and several other organic solvents

Flow Rate for Water per cm² (DIN 58355)
20 ml/min at Δp = 1 bar | ~ 15 psi

Sterilization Methods
Autoclaving at 121°C, ETO sterilization, γ-irradiation (25 kGy)

Thermal Resistance
130°C max.

Thickness (acc. to DIN 53105)
115–145 µm

Growth Promotion Test (ISO 7704)
Bacterial recovery testing has shown that the grid lines do not enhance or inhibit the growth of microorganisms.
Recovery rates of total and coliform bacteria indicate that there is no influence on bacterial growth and development due to chemical extractables.

pH of Filter Extract
< 8.3

Coliform Retention
100%

Recovery Rate, Lot-released DIN 7704)
≥ 90%

Sterility (AC)
Zero growth

Order Numbers

25 mm diameter:
11407-025N, pack of 100

47 mm diameter:
11407-047N, pack of 100
11407-047R, pack of 1000
11407-047ACN, pack of 100 individual sterile packed
11407-047ACR, pack of 1000 individual sterile packed

50 mm diameter:
11407-050N, pack of 100
11407-050ACN, pack of 100 individual sterile packed
11407-050ACR, pack of 1000 individual sterile packed