



Adsorption
(γ -Globulin, approx. 125 $\mu\text{g}/\text{cm}^2$)

Cellulose Nitrate Membrane (Ester) Filters, Type 113, for Sample Pretreatment, Particle Testing and Chemotaxis

Cellulose nitrate is a standard material for membrane filters and offers a wide range of pore sizes from 8 μm to 0.45 μm . The larger pore sizes (8 μm , 5 μm , 3 μm) find use for chemotaxis and cell retention, the 0.45 μm pore size for particle collection.

The high non-specific adsorption of the cellulose nitrate membrane is very advantageous for diagnostic kits. The adsorption decreases with increasing pore size, as shown in the diagram.

Typical performance for cellulose nitrate (ester) membrane filters

Adsorption	See diagram
Bubble point acc. DIN 58355	Wetted with water, minimum values: 0.3 bar (30 kPa, 4.35 psi) for 8 μm pore size, 11301 0.5 bar (50 kPa, 7.25 psi) for 5 μm pore size, 11342 0.6 bar (60 kPa, 8.7 psi) for 3 μm pore size, 11302 1.0 bar (100 kPa, 14.5 psi) for 1.2 μm pore size, 11303 1.4 bar (140 kPa, 20.3 psi) for 0.8 μm pore size, 11304 2.0 bar (200 kPa, 29 psi) for 0.65 μm pore size, 11305 2.4 bar (240 kPa, 34.8 psi) for 0.45 μm pore size, 11306
Chemical compatibility	Resistant to aqueous solutions in the pH-range 4-8 to hydrocarbons and to some solvents.
Extractables with water	Less than 1%
Flow rate for water acc. DIN 58355	Average values per cm^2 area at $\Delta p = 1$ bar (100 kPa, 14.5 psi): 750 ml/min for 8 μm pore size, 11301 570 ml/min for 5 μm pore size, 11342 430 ml/min for 3 μm pore size, 11302 320 ml/min for 1.2 μm pore size, 11303 200 ml/min for 0.8 μm pore size, 11304 130 ml/min for 0.65 μm pore size, 11305 69 ml/min for 0.45 μm pore size, 11306
Material	Cellulose nitrate
Sterilization	By autoclaving at 121°C, gamma radiation (25 kGy) or with ethylene oxide.
Thermal stability	Max. temperature 130°C
Thickness acc. DIN 53105	130 μm

Order numbers for cellulose nitrate membrane filters, type 113

13 mm diameter	11301-013 N	8 μm , pack of 100
	11342-013 N	5 μm , pack of 100
	11302-013 N	3 μm , pack of 100
	11304-013 N	0.8 μm , pack of 100
	11306-013 N	0.45 μm , pack of 100
20 mm diameter	11304-020 N	0.8 μm , pack of 100
	11306-020 N	0.45 μm , pack of 100
25 mm diameter	11301-025 N	8 μm , pack of 100
	11342-025 N	5 μm , pack of 100
	11302-025 N	3 μm , pack of 100
	11303-025 N	1.2 μm , pack of 100
	11304-025 N	0.8 μm , pack of 100
	11305-025 N	0.65 μm , pack of 100
	11306-025 N	0.45 μm , pack of 100
30 mm diameter	11306-030 N	0.45 μm , pack of 100
37 mm diameter	11301-037 N	8 μm , pack of 100
	11304-037 N	0.8 μm , pack of 100
	11306-037 N	0.45 μm , pack of 100

Order numbers for cellulose nitrate membrane filters, type 113

47 mm diameter	11301-047 N	8 µm, pack of 100
	11342-047 N	5 µm, pack of 100
	11302-047 N	3 µm, pack of 100
	11303-047 N	1.2 µm, pack of 100
	11304-047 N	0.8 µm, pack of 100
	11305-047 N	0.65 µm, pack of 100
	11306-047 N	0.45 µm, pack of 100
50 mm diameter	11301-050 N	8 µm, pack of 100
	11342-050 N	5 µm, pack of 100
	11302-050 N	3 µm, pack of 100
	11303-050 N	1.2 µm, pack of 100
	11304-050 N	0.8 µm, pack of 100
	11305-050 N	0.65 µm, pack of 100
	11306-050 N	0.45 µm, pack of 100
80 mm diameter	11301-080 ALN	8 µm, pack of 100 sterile, non-individually packed
85 mm diameter	11306-085 N	0.45 µm, pack of 100
90 mm diameter	11342-090 G	5 µm, pack of 25
	11303-090 G	1.2 µm, pack of 25
	11304-090 G	0.8 µm, pack of 25
	11306-090 G	0.45 µm, pack of 25
	11306-090 N	0.45 µm, pack of 100
142 mm diameter	11301-142 G	8 µm, pack of 25
	11302-142 G	3 µm, pack of 25
	11303-142 G	1.2 µm, pack of 25
	11304-142 G	0.8 µm, pack of 25
	11304-142 N	0.8 µm, pack of 100
	11305-142 G	0.65 µm, pack of 25
	11306-142 G	0.45 µm, pack of 25
	11306-142 N	0.45 µm, pack of 100
	11342-142 G	5 µm, pack of 25
	11342-142 N	5 µm, pack of 100
293 mm diameter	11301-293 G	8 µm, pack of 25
	11303-293 G	1.2 µm, pack of 25
	11304-293 G	0.8 µm, pack of 25
	11304-293 N	0.8 µm, pack of 100
	11306-293 G	0.45 µm, pack of 25
	11306-293 N	0.45 µm, pack of 100
	11342-293 G	5 µm, pack of 25

47 mm and 50 mm filters are, in some pore sizes, sterile, individually packed, available in packs of 100.

Order numbers

47 mm diameter	11301-047 ACN	8 µm
	11302-047 ACN	3 µm
	11303-047 ACN	1.2 µm
	11304-047 ACN	0.8 µm
	11305-047 ACN	0.65 µm
	11306-047 ACN	0.45 µm
50 mm diameter	11301-050 ACN	8 µm
	11302-050 ACN	3 µm
	11303-050 ACN	1.2 µm
	11304-050 ACN	0.8 µm
	11305-050 ACN	0.65 µm
	11306-050 ACN	0.45 µm