# Corning® Filtration Systems

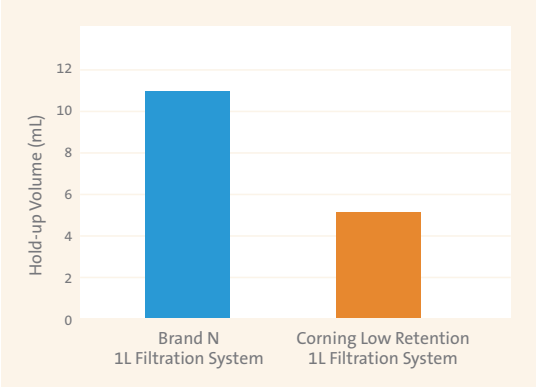
## The Smart Choice for Cell Culture Filtration

CORNING

# Corning® Filtration Systems: Low Liquid Retention with Superior Performance

## The Smart Choice for Filtration

- Corning's vacuum filtration systems use a square filter membrane support system that increases filtration rates
- Features a low profile filter support that results in the lowest hold-up volume (liquid retention) of all major brands
- Environmentally friendly square design means virtually no wasted membrane compared to circular designs
- Higher capacity polyethersulfone (PES) membranes maximize throughput
- Printed pore size, membrane, and part number are printed on funnel
- Angled vacuum hose adapter for unit stability
- Glass fiber prefilters sold separately



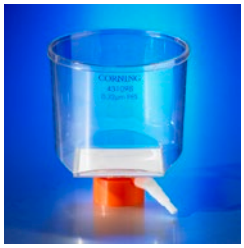

**A 2014 internal benchmarking study*** demonstated that Corning low retention filtration systems lost less than 5 mL compared to other commonly used filration systems, which lost up to 11 mL. Over time, the loss of media and other reagents can add up significantly.

*1L Filtration System Benchmark Average Liquid Retention (n = 6).


Corning® 500 mL filtration system with funnel and a 1,000 mL receiver bottle (Cat. No. 431097)

# Selecting the Best Filtration System for Your Application

Vacuum Filtration Systems



Bottle Top Vacuum Filters

Tube Top Vacuum Systems

## Step 1: Match your application with the best pore size.

| Application | Pore Size (µm) | Membrane |
|---|---|---|
| Mycoplasma removal | 0.1 | PES |
| Sterilization and ultracleaning of aqueous solutions | 0.20 to 0.22 | PES, CA, CN, NY |
| Clarification of solutions | 0.45 | CA |

CA = cellulose acetate, PES = polyethersulfone, CN = cellulose nitrate, NY = nylon.

## Step 2: Select the best membrane to optimize flow rate and throughput.

| | Polyethersulfone | Cellulose Acetate | Cellulose Nitrate | Nylon |
|---|---|---|---|---|
| Flow rates for medium with 10% serum | Best | Very good | Good | Poor |
| Wetting agents | No | Yes | Yes | No, naturally hydrophilic |
| Protein binding | Very low | Very low | Very high | Low to moderate |
| DNA binding | Very low | Very low | High | Very high |
| Chemical resistance | Low | Low | Low | Moderate to high |

## Step 3: Choose the right capacity.

| Vacuum Filter Description | Membrane Dimensions (mm) | Effective Filter Area ($cm^2$) | Expected Throughput (mL) |
|---|---|---|---|
| 150 mL Bottle Top Filters<br>150 mL Filtration Systems<br>150 mL Tube Top Filters | 42 x 42 | 13.6 | 100 - 500 |
| 250 mL Filtration Systems | 49.5 x 49.5 | 19.6 | 200 - 750 |
| 500 mL Bottle Top Filters<br>500 mL Filtration Systems | 63 x 63 | 33.2 | 300 - 1,500 |
| 1,000 mL Bottle Top Filters<br>1,000 mL Filtration Systems | 79 x 79 | 54.5 | 500 - 3,000 |

# Corning® Filtration Systems Ordering Information

## Vacuum Filtration Systems

| Cat. No. | Membrane | Funnel/Bottle Volume (mL) | Pore Size (µm) | Qty/Cs |
|---|---|---|---|---|
| **150 mL Capacity, 42 mm Square Membrane** | | | | |
| 431153 | PES | 150/150 | 0.22 | 12 |
| 431154 | CA | 150/150 | 0.22 | 12 |
| 431155 | CA | 150/150 | 0.45 | 12 |
| **250 mL Capacity, 49.5 mm Square Membrane** | | | | |
| 430756 | CN | 250/250 | 0.22 | 12 |
| 430767 | CA | 250/250 | 0.22 | 12 |
| 430768 | CA | 250/250 | 0.45 | 12 |
| 430771 | NY | 250/250 | 0.2 | 12 |
| 431096 | PES | 250/250 | 0.22 | 12 |
| **500 mL Capacity, 63 mm Square Membrane** | | | | |
| 430758 | CN | 500/500 | 0.22 | 12 |
| 430769 | CA | 500/500 | 0.22 | 12 |
| 430770 | CA | 500/500 | 0.45 | 12 |
| 430773 | NY | 500/500 | 0.2 | 12 |
| 431097 | PES | 500/500 | 0.22 | 12 |
| 431475 | PES | 500/500 | 0.1 | 12 |
| **1,000 mL Capacity, 79 mm Square Membrane** | | | | |
| 430186 | CN | 1,000/1,000 | 0.22 | 12 |
| 430515 | NY | 1,000/1,000 | 0.2 | 12 |
| 430516 | CA | 1,000/1,000 | 0.45 | 12 |
| 430517 | CA | 1,000/1,000 | 0.22 | 12 |
| 431098 | PES | 1,000/1,000 | 0.22 | 12 |
| 431205* | CA | 500*/1,000 | 0.22 | 12 |
| 431206* | CA | 500*/1,000 | 0.45 | 12 |
| 431474 | PES | 1,000/1,000 | 0.1 | 12 |

*500 mL funnel with 63 mm membrane.

## Storage Bottles

**Easy Grip Style**

| Cat. No. | Volume (mL) | Neck Size (mm) | Qty/Pk | Qty/Cs |
|---|---|---|---|---|
| 431175 | 150 | 45 | 2 | 24 |
| 430281 | 250 | 45 | 2 | 24 |
| 430282 | 500 | 45 | 2 | 24 |
| 430518 | 1,000 | 45 | 2 | 24 |

## Bottle Top Vacuum Filters

| Cat. No. | Membrane | Volume (mL) | Neck Size (mm) | Pore Size (µm) | Qty/Cs |
|---|---|---|---|---|---|
| **150 mL Capacity, 42 mm Square Membrane** | | | | | |
| 430624 | CA | 150 | 33 | 0.22 | 48 |
| 430625 | CA | 150 | 33 | 0.45 | 48 |
| 430626 | CA | 150 | 45 | 0.22 | 48 |
| 430627 | CA | 150 | 45 | 0.45 | 48 |
| 431160 | PES | 150 | 33 | 0.22 | 48 |
| 431161 | PES | 150 | 45 | 0.22 | 48 |
| **500 mL Capacity, 63 mm Square Membrane** | | | | | |
| 430049 | NY | 500 | 45 | 0.2 | 12 |
| 430512 | CA | 500 | 33 | 0.45 | 12 |
| 430513 | CA | 500 | 45 | 0.22 | 12 |
| 430514 | CA | 500 | 45 | 0.45 | 12 |
| 430521 | CA | 500 | 33 | 0.22 | 12 |
| 431117 | PES | 500 | 33 | 0.22 | 12 |
| 431118 | PES | 500 | 45 | 0.22 | 12 |
| **1,000 mL Capacity, 79 mm Square Membrane** | | | | | |
| 430015 | CA | 1,000 | 45 | 0.22 | 12 |
| 431174 | PES | 1,000 | 45 | 0.22 | 12 |

## 150 mL Tube Top Vacuum Filters

| Cat. No. | Membrane | Funnel Size/ Tube Size (mL) | Pore Size (µm) | Qty/Cs |
|---|---|---|---|---|
| 430314 | CA | 150/50 | 0.45 | 12 |
| 430320 | CA | 150/50 | 0.22 | 12 |

## Glass Fiber Prefilters

| Cat. No. | Shape | Filter Funnel (mL) | Qty/Cs |
|---|---|---|---|
| 431410 | 42 mm square | 150 | 100 |
| 431411 | 49.5 mm square | 250 | 100 |
| 431412 | 63 mm square | 500 | 100 |
| 431413 | 79 mm square | 1000 | 100 |

For use with filtration systems or bottle top filters.

**Warranty/Disclaimer:** Unless otherwise specified, all products are for research use only. Not intended for use in diagnostic or therapeutic procedures. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications.