

# Corning® Filtration Systems

The Smart Choice for Cell Culture Filtration

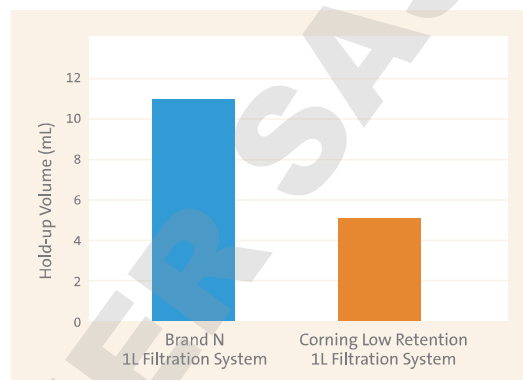
CORNING



# 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\* demonstrated that Corning low retention filtration systems lost less than 5 mL compared to other commonly used filtration 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 <sup>2</sup> ) | Expected Throughput (mL) |
|-----------------------------|--------------------------|------------------------------------------|--------------------------|
| 150 mL Bottle Top Filters   | 42 x 42                  | 13.6                                     | 100 - 500                |
| 150 mL Filtration Systems   |                          |                                          |                          |
| 150 mL Tube Top Filters     |                          |                                          |                          |
| 250 mL Filtration Systems   | 49.5 x 49.5              | 19.6                                     | 200 - 750                |
| 500 mL Bottle Top Filters   | 63 x 63                  | 33.2                                     | 300 - 1,500              |
| 500 mL Filtration Systems   |                          |                                          |                          |
| 1,000 mL Bottle Top Filters | 79 x 79                  | 54.5                                     | 500 - 3,000              |
| 1,000 mL Filtration Systems |                          |                                          |                          |

## Corning's comprehensive cell culture product portfolio includes media.

- ▶ Classic media
- ▶ Buffered salt solutions
- ▶ Serum-free and specialty media
- ▶ Human and animal sera
- ▶ Cell culture reagents
- ▶ WFI-quality water
- ▶ Flexible packaging systems
- ▶ Custom media and packaging solutions

Visit [www.corning.com/lifesciences](http://www.corning.com/lifesciences) or contact your local Corning Account Manager to learn about our comprehensive range of cell culture consumables, including vessels, surfaces, and media.





# Corning® Filtration Systems Ordering Information

## Vacuum Filtration Systems

| Cat. No.                                        | Membrane | Funnel/Bottle Volume (mL) | Pore Size (µm) | Qty/Cs |
|-------------------------------------------------|----------|---------------------------|----------------|--------|
| <b>150 mL Capacity, 42 mm Square Membrane</b>   |          |                           |                |        |
| 431153                                          | PES      | 150/150                   | 0.22           | 12     |
| 431154                                          | CA       | 150/150                   | 0.22           | 12     |
| 431155                                          | CA       | 150/150                   | 0.45           | 12     |
| <b>250 mL Capacity, 49.5 mm Square Membrane</b> |          |                           |                |        |
| 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     |
| <b>500 mL Capacity, 63 mm Square Membrane</b>   |          |                           |                |        |
| 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     |
| <b>1,000 mL Capacity, 79 mm Square Membrane</b> |          |                           |                |        |
| 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 |
|-------------------------------------------------|----------|-------------|----------------|----------------|--------|
| <b>150 mL Capacity, 42 mm Square Membrane</b>   |          |             |                |                |        |
| 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     |
| <b>500 mL Capacity, 63 mm Square Membrane</b>   |          |             |                |                |        |
| 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     |
| <b>1,000 mL Capacity, 79 mm Square Membrane</b> |          |             |                |                |        |
| 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     |

## Corning 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.

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### Corning Incorporated Life Sciences

836 North St.  
Building 300, Suite 3401  
Tewksbury, MA 01876  
t 800.492.1110  
t 978.442.2200  
f 978.442.2476

[www.corning.com/lifesciences](http://www.corning.com/lifesciences)

### Worldwide Support Offices

#### ASIA/PACIFIC Australia/New Zealand

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#### China

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##### Brasil

t (55-11) 3089-7419

f (55-11) 3167-0700

##### Mexico

t (52-81) 8158-8400

f (52-81) 8313-8589

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