## 3.1.3 - Nylon (NY) Membrane - Magna™

### Description and Use

GVS Life Sciences Nylon Filtration Membrane is a supported, naturally hydrophilic membrane designed to wet out evenly and retain its superior strength during use in general filtration or medical assays

### Features and Benefits

- **Hydrophilic:** Eliminates the need for wetting agents that can potentially interfere with biological processes
- **Super strength:** Eases handling when used with automated equipment
- **Low extractables:** Ensures tests will be clean and pure leading to more consistent results
- **Lot-to-lot consistency:** Quality checks ensure lot-to-lot consistency, both down and across the polyester web, for dependable results every time

### Typical Applications

- Sterilization and clarification of aqueous and organic solvent solutions
- HPLC sample preparation

### Versatile Capabilities, Consistent Performance

Produced through a proprietary manufacturing process, GVS Life Sciences Nylon Filtration Membrane meets rigorous quality standards throughout every step of production. This process generates consistent lot-to- lot flow rates among the membranes ensuring product uniformity.

GVS Life Sciences Nylon Filtration Membrane is internally supported with an inert polyester support web giving it added dimensional strength and stability that prevents cracking, tearing, curling and breaking. This added strength and durability is advantageous during usage that involves aggressive handling or automated equipment.

A naturally hydrophilic membrane, GVS Life Sciences Nylon Filtration Membrane does not require wetting agents that can interfere with biological processes. The resulting membrane has a void volume of 70% to 80% for high diffusion and low-flow resistance.

### Flexibility for OEM Requirements

GVS Life Sciences Nylon Filtration Membrane is available in rolls from 1cm to 33cm wide, as well as sheets, cut disks and pleated packs that can be customized to meet your application and size requirements. Because the GVS Life Sciences Nylon Filtration Membrane is manufactured on-site, all customization is easy and cost-effective.

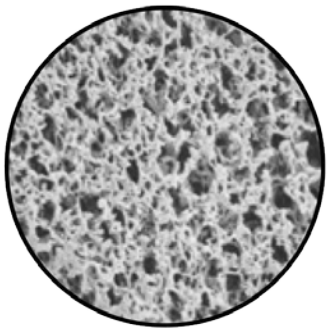

**Figure 2:** Scanning Electron Micrograph of GVS Life Sciences Nylon Filtration Membrane

**Table 2:** Product Characteristics

| | |
|---|---|
| Sterilization | Gamma Irradiation or Ethylene Oxide (EtO) |
| USP Class VI toxicity | Passed |
| Thickness | 65 - 125 $\mu$m |
| Extractables | < 0.2% (< 0.0015 mg/cm$^2$) |
| BSA Protein Binding | Approx. 120 $\mu$g/cm$^2$ |
| Maximum Operating Temperature | 356°F (180°C) |
| Sealing Compatibility | Ultrasonics, Heat, Radio Frequency and Insert Molding |
| Pore Size Range | 0.1 to 20 $\mu$m |

**Table 3:** Performance Characteristics

| Pore Size | 0.1$\mu$m | 0.22$\mu$m | 0.45$\mu$m | 0.6$\mu$m | 0.8$\mu$m | 1.2$\mu$m | 5.0$\mu$m | 10.0$\mu$m | 20.0$\mu$m |
|---|---|---|---|---|---|---|---|---|---|
| Minimum Bubble Point psi (kg/cm$^2$) | 70 (4.92) | 50 (3.51) | 35 (2.11) | 18 (1.27) | 13 (0.91) | 11 (0.77) | 6 (0.42) | 5 (0.35) | 3 (0.21) |
| Typical Flow Rate, mL/min/ cm$^2$ @ 10psi (0.7 kg/cm$^2$) | 4.0 (0.28) | 9.9 (0.70) | 26.9 (1.89) | 59.3 (4.17) | 80.5 (5.66) | 180 (12.7) | 331 (23.3) | 552 (38.8) | 1448 (101.9) |

# FILTRATION MEMBRANES

## Ordering information: Nylon Membrane

Pore sizes

| Dimensions<br>Packaging | 13mm<br>100/pk | 25mm<br>100/pk | 37mm<br>100/pk | 47mm<br>100/pk | 47mmGRD<br>100/pk |
|---|---|---|---|---|---|
| 0.1 µm | 1213760 | 1213761 | | 1213762 | |
| 0.22 µm | 1213766 | 1213768 | | 1213769 | |
| 0.45 µm | 1213774 | 1213775 | 1228824 | 1213776<br>1220671** | 1213825<br>1213845 ~ |
| 0.65 µm | | 1213782 | | 1213783 | |
| 0.8 µm | 1213788 | 1213789 | 1214881 | 1213790 | 3013826 |
| 1.2 µm | 1213794 | 1213796 | 1230356 | 1213797 | 1214880 |
| 5.0 µm | 1213810 | 1213811 | 1236904 | 1213812 | 3048260 |
| 10.0 µm | 1213817 | 1213818 | | 1213819 | |
| 20.0 µm | 1213801 | 1213802 | | 1213803 | |

Pore sizes

| Dimensions<br>Packaging | 90mm<br>25/pk | 142mm<br>25/pk | 293mm<br>25/pk | 200x200mm<br>5/pk | 30cmx3m<br>1/pk |
|---|---|---|---|---|---|
| 0.1 µm | 1213763 | 1213764 | 1213765 | 1222859 | 1241477 |
| 0.22 µm | 1213770 | 1213771 | 1213772 | 1222858 | 1224690 |
| 0.45 µm | 1213778 | 1213779 | 1213780 | 1222857 | 1225982 |
| 0.65 µm | 1213784 | 1213786 | | 1222856 | 3052148 |
| 0.8 µm | 1213791 | 1213792 | 1213793 | 1222855 | |
| 1.2 µm | 1213798 | 1213799 | 1213800 | 1222854 | 1214956 |
| 5 .0µm | 1213813 | 1213815 | 1213816 | 1222851 | 1221441 |
| 10.0 µm | 1213820 | | 1213823 | 1222852 | |
| 20.0 µm | 1213807 | 1213808 | 1213809 | 1222853 | |

GRD = Gridded **sterile