

# Whatman Puradisc 25 NYL Disposable Filter Device

## Product Information sheet

### Introduction

#### Important

Read these instructions carefully before using the products.

#### Intended use

The products are intended for research use only, and shall not be used in any clinical or *in vitro* procedures for diagnostic purposes.

### Description

The Puradisc 25 NYL disposable filtration devices have been designed to provide pure filtration of either aqueous or solvent based solutions. They are made of nylon membrane with a polypropylene housing using the most advanced methods and design features available today. This design provides the best combination of large filter area and low hold up volume available.

Disposable filtration devices provide great labor saving efficiency while ensuring superior filtration in comparison to hand assembled reusable filter housings.

This bulletin provides general information on the products listed below. The specifications in [Technical Data: Puradisc 25 NYL Disposable Filter Devices](#) are intended to provide the basis for establishing functional use, as well as setting the quality assurance test performance levels.

- Nylon Filter Media
- Polypropylene Housing
- Connections:
  - Inlet: Female Luer Lock (FLL)
  - Outlet: Male Slip Luer (ML)
- Ultra Clean — No mold release agents used in these devices
- Bonded and Sealed With Advanced Fusion Technology
- Rugged Construction
- Three Pore Sizes Available
- Hold Up Volume With Air Purge < 0.1 mL
- Integrity Testable: Bubble Point
- Biosafe USP Class VI
- Autoclavable

### Puradisc 25 NYL — 25 mm Filters

Table 1.

Product code	Product name	Pore Size (µm)	Qty/Pkg
6750-2502	Puradisc 25 NYL	0.2	50
6751-2502	Puradisc 25 NYL	0.2	200
6753-2502	Puradisc 25 NYL	0.2	1000
6750-2504	Puradisc 25 NYL	0.45	50
6751-2504	Puradisc 25 NYL	0.45	200
6752-2504	Puradisc 25 NYL	0.45	500
6753-2504	Puradisc 25 NYL	0.45	1000
6750-2510	Puradisc 25 NYL	1.0	50
6751-2510	Puradisc 25 NYL	1.0	200
6730-2510	Puradisc 25 NYL	1.0	500
6753-2510	Puradisc 25 NYL	1.0	1000

### Typical Applications for Puradisc 25 NYL Filter Devices

- Organic Based Sample Clarifications Particle Counting Solutions
- Salt Solutions
- TLC and GC Sample Clarification
- Serum, Plasma and Tissue Culture Solutions
- Buffer Solutions Biological Solutions
- Environmental Water Samples HPLC Samples

### Technical Data: Puradisc 25 NYL Disposable Filter Devices

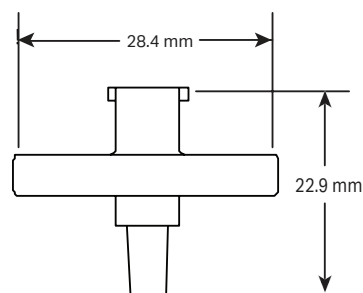


Fig 1. Connections: Inlet: Female Luer Lock (FLL) Outlet: Male Slip Luer (ML)

**Table 2.**

Dimensions:	28.4 mm x 22.9 mm
Weight:	2.7 grams
Filtration Area:	4.2 cm <sup>2</sup>
Maximum Pressure (Housing):	5.2 bar (75 psi)
Housing:	Polypropylene
Fluid Retention:	Full housing 0.16 mL With Air purge < 0.1 mL
Filter Media:	Nylon
Flow Direction:	Flow should enter from the inlet
Connectors:	Inlet: Female Luer Lock (FLL) Outlet: Male Slip Luer (ML)
Biosafe:	All materials pass USP Class VI
Sterilization:	Autoclave at 121°C (131°C max) at 15 psi for 20 minutes.

**Table 3.**

Pore Size µm	Water Bubble Point (minimum)		Isopropyl Alcohol Bubble Point	
	psi	Bar	psi	Bar
0.2	45	3.1	16	1.7
0.45	25	1.7	10	0.7
1.0	8	0.5	3	0.2

**Table 4.**

Pore Size µm	Water Flow rates <sup>1</sup> mL/min at 45 psi <sup>2</sup> (3 bar)
0.2	55
0.45	185
1.0	675

<sup>1</sup> Typical values<sup>2</sup> Differential Pressure

## Chemical Resistance Summary<sup>1</sup>

**Table 5.**

Class of Substance 23°C (68° F)	Polypropylene/Nylon Guide for Use
Acids, Concentrated	Not Useable
Acids, Dilute	Not Useable
Alcohols	Long Term
Amyl alcohol	Long Term
Benzyl alcohol	Not Useable
Bases	Not Useable
Esters	Long Term
Ethers	Long Term
Formaldehyde	Short Term
Glycols	Not Useable
Hydrocarbons:	
Aromatic	Short Term
Aliphatic	Long Term
Halogenated	Short Term

<sup>1</sup> Published as a general guide only. Due to time, temperature and stress variations, the user must evaluate the specific product and application to determine the appropriateness of use.

Class of Substance 23°C (68° F)	Polypropylene/Nylon Guide for Use
Ketones	Long Term
Oils	Long Term

## Operating Instructions

### Safety

When considering the special factors of your application, consult the Technical Data to determine correctness of use. Do not exceed the pressure, temperature or chemical compatibility recommendations. High pressures can be obtained when using syringes. The smaller the syringe the higher the pressure that can be generated. As a general guide, the following pressures can be obtained by hand with the syringes indicated:

- 20 mL – 30 psi (2 bar)
- 10 mL – 50 psi (3.4 bar)
- 5 mL – 75 psi (5.2 bar)
- 3 mL – 100 psi (6.9 bar)
- 1 mL – 150 psi (10.3 bar)

Each user should determine the pressure they can generate by hand with a specific size syringe and take appropriate safety precautions not to exceed the recommended rating for the device used. If these limitations are exceeded, bursting of the device may occur resulting in loss of sample or personal injury.

### Nylon Membrane Considerations

This carefully selected Nylon membrane filter media meets special filtration requirements of durability, high temperature resistance, and broad chemical compatibility.

### Efficiency

To maximize filtration throughput, use the largest pore size filter that will provide the required cleanliness. Sterilization of liquids requires a sterile 0.2 µm filter. To extend filter life use low flow or pressure and prefilters.

### To use with a syringe

Step	Action
1	Fill the syringe with the solution to be filtered.
2	Secure the filled syringe to the FLL on the inlet with a twisting motion.
3	With outlet pointed upward, gradually apply thumb pressure to the syringe plunger to initiate flow. Once the device is filled with liquid, direct the flow to a suitable container and collect the filtered solution.
4	Change filters when flow becomes too slow or resistance becomes excessive.

### Air Locks

Air locks seriously hamper flow rates. To eliminate, point the outlet of the filter device upward during the initiation of liquid flow.

## Bubble Point (BP) Test

Flush the filter device with 1.0 mL or more of water. After the membrane is completely wet with the outlet pointed upward, apply air, under controlled pressure, to the inlet until air breaks through the membrane and bubbles from the outlet. The pressure at which air passes through the wetted membrane is the BP. Refer to table 3 for minimum water BP values.

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