

# Whatman Puradisc 25 GD Disposable Filter Device

## 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

Puradisc 25 GD disposable filter devices were designed to provide faster and more efficient prefiltration of aqueous or solvent solutions. They are made of multilayered, binder-free glass microfibre filters with a polypropylene housing using the most advanced methods and design features available today.

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

This bulletin provides general information on the products listed below. The specifications in the Technical Data section are intended to provide the basis for establishing functional use, as well as setting quality assurance test performance levels.

- Multilayered Multiple Porosity
- High Flow Binder Free Glass Microfibre Filter Media.
- Polypropylene Housing
- Connectors

Inlet: Female Luer Lock (FLL) Outlet: Male Luer (ML)

- Ultra-Clean with No Mold Releasing Agents or Glues Used
- Available in 2 Particle Retention Ratings, Labeled for Easy Identification
- Autoclavable

#### Puradisc 25 GD - 25mm Filters

Product	Product	Pore Size	Media	Qty./Pkg.
Code	Name	(µm)	Meula	aly./Phy.
67832510	Puradisc 25 GD	1	GMF-150	100
67832520	Puradisc 25 GD	2	GMF-150	100
67922510	Puradisc 25 GD	1	GMF-150	1000

#### Typical Applications for Puradisc 25 GD Filter Devices

Serum Samples

**Tissue Culture Media** 

Immunologicals Buffer Solutions Particle Counting Solutions Salt Solutions Aqueous Solutions Biological Samples Virus Suspensions Air/Gas Filtration HPLC, TLC and GC Sample Clarification

#### **General Fine Filtration:**

Most liquids/gases requiring filtration to 1.0µm retention.

#### **Prefiltration:**

extends life of RO/UF/MF membranes.

#### Semiconductor/Magnetic Media:

Solvents • Acids • Bases • Etchants • Photoresists • Strippers • Air Guns/Cleaning Wands • Coatings • Oxide Dispersions • Media Chemicals • Gases

#### Laboratories:

Clean air/gas for instruments/environments • Analytical Reagents • Solvents • Buffers Diluents • Serum, Ascites Fluid

#### Sample prep:

for Ground Water • Process Solutions Effluents

#### **Photographic:**

Emulsions, Make-up, or Rinse water

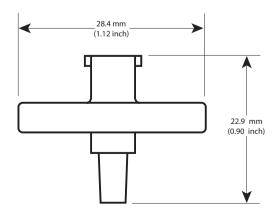
#### Food & Beverage Analysis:

 $\mathsf{Syrup} \bullet \mathsf{Oils} \bullet \mathsf{Spirits} \bullet \mathsf{Water} \bullet \mathsf{Beverages} \bullet \mathsf{Wine} \bullet \mathsf{Juices} \bullet \mathsf{Bottled}$  Water

#### Pharmaceutical • Cosmetic • Personal Care:

Water to wash/rinse  $\bullet$  Vials, glassware  $\bullet$  General prefiltration  $\bullet$  Filtration with requirements to  $1\mu m$  nominal for clarity

#### TECHNICAL DATA: Puradisc 25 GD Disposable Filter Devices



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## Connections • Inlet: Female Luer Lock (FLL) Outlet: Male Luer (ML)

Product Code	Pore Size (µm)	Media
6783-2510	1.0	GMF 150
6783-2520	2.0	GMF 150
6792-2510	1.0	GMF 150

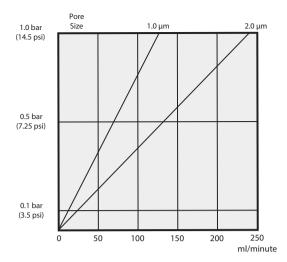
## CHEMICAL RESISTANCE SUMMARY

Classes of Substances	Polypropylene
20°C (68°F)	Guide for Use <sup>1</sup>
Hydrocarbons, aliphatic	One Week
Hydrocarbons, aromatic	One Week
Hydrocarbons, halogenated	One Week
Ketones	One Week
Oxidising agents, strong	One Week
Acids, dilute	Long Term
Acids concentrated	Long Term
Alcohols	LongTerm
Aldehydes	One Month
Bases	Long Term
Esters	One Week

<sup>1</sup> For guidance only. User should determine suitability of syringe filter for particular application.

Dimensions:	28.4 mm (1.12 in.) x 22.9 mm (0.90 in.)	
Weight:	2.7 grams	
Filtration Area:	$4.2  \text{cm}^2$	
Maximum Pressure:	100 psi (6.9 bar)	
Housing:	Polypropylene	
Volume "Hold Up":	Full housing 0.16 ml	
	With Air purge 0.1 ml	
Filter Media:	GMF-150 Multigrade Glass Microfibre	
Flow Direction:	Flow should enter from the inlet	
Connectors:	Inlet—Female Luer Lock (FLL)	
	Outlet—Male Luer (ML)	
Sterilization:	Autoclave at 121°C (132°C max) for 20 minutes.	

#### **TYPICAL WATER FLOW RATES**



### **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 obtained by hand with the syringes indicated: 20mL, 80 psi; 10mL, 140 psi; 5mL, 180 psi; 3mL, 200 psi; 1mL, 250 psi. 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.

**Filter Media:** Multigrade GMF-150 is a combination of two microfiber filters in one. Manufactured from 100% borosilicate glass microfibers, the filter is unique in its construction: A coarse layer on top, meshed with a fine layer below. This filtration technique allows for higher particulate loading capac-ity, faster flow rate and extended life of filter. Multigrade GMF-150, used as a prefilter, nearly doubles the volume of sample filtered compared to a single density prefilter. Compared to an unprotected membrane, the volume of sample filtered is three to seven times greater. Conventional prefilters cannot per-form upto the same standard as the Multigrade GMF-150 simply because prefilters of a uniform density do not have the loading capacity afforded by Whatman's multilayered filter technology.

**Efficiency:** To maximize filtration throughput, use the largest pore size filter that will provide the required cleanliness. 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.

#### Step Action

4 Change filters when flow becomes too slow or resistance becomes excessive.

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