

Whatman™ Polydisc AS Disposable Filter

Instructions for Use

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.

Background

Description

Whatman™ Polydisc AS is an in-line filter designed to provide pure filtration of aqueous solutions. This filter contains a glass microfiber (GMF) prefilter over low binding polyethersulfone (PES) membrane filter to maximize throughput while maintaining low hold-up volume.

For protection prior to use, the gamma-irradiated filter is sealed by a medical grade blister pack and the outlet is further covered by a protective cap.

Polydisc AS is intended for single use. Reuse is not recommended.

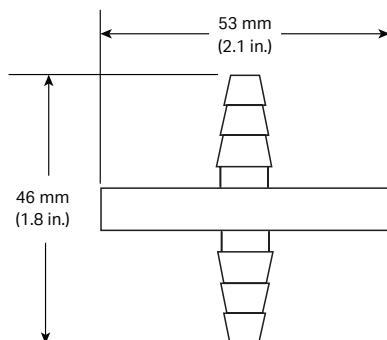
Typical applications

Polydisc AS is intended to be used for filtration of aqueous solutions and is suitable for preparing the following solutions:

- Tissue culture and filterable growth media
- Salt and buffer solutions
- Reagents
- Cleaning and rinse solutions

Technical information

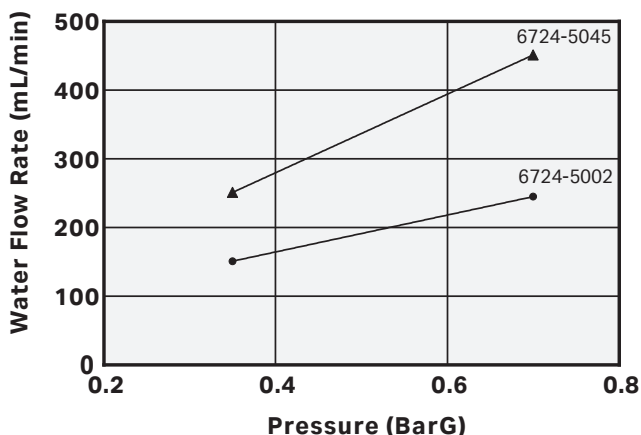
Illustration of Polydisc AS



Technical data

Housing and support:	Polypropylene	
Filter media:	GMF prefilter PES final filter	
Hold-up volume:	< 1.0 mL, with air purge	
Pore size:	Specification	Product code
	0.2 µm	6724-5002
	0.45 µm	6724-5045, 6724-5145
Effective filtration area:	16 cm ²	
Inlet/outlet connections:	6 to 10 mm (¼ to ¾ in.) stepped barb	
Dimensions (W×L):	53 × 46 mm (2.1 × 1.8 in.)	
Typical weight:	11.5 g	
Sealing method:	Heat-fused	
Irradiated:	Gamma	
Autoclavable:	121°C (250°F) for 20 minutes at 0.1 MPa (1.0 bar, 15 psi) for non-sterile variety	
Maximum operating pressure:	0.41 MPa (4.1 bar, 60 psi)	
Minimum bubble point (water):	Specification	Product code
	0.21 MPa (2.1 bar, 30 psi)	6724-5002
	0.13 MPa (1.3 bar, 20 psi)	6724-5045, 6724-5145
Operating temperature:	Ambient, recommended	
Flow direction:	Inlet to outlet	
Non-pyrogenic:	< 0.5 EU/mL	
Bacterial retention:	6724-5002 retains 1.0 × 10 ⁷ cfu/cm ² <i>B. diminuta</i> per modified ASTM F-838	
Biosafety:	Materials pass USP Class VI	

Typical water flow rate



Operating Instructions

Safety

When considering the specific factors of your application, refer to Technical data for correct use. Make sure not to exceed the Maximum operating pressure and follow temperature or chemical compatibility recommendations.



CAUTION

If the Maximum operating pressure is exceeded, bursting of the device can occur resulting in loss of sample or personal injury.

Preparing integrity test (bubble point test)

Step	Action
1	Assemble the test stand.
2	Fill and flush the filter with the test fluid (water). <ol style="list-style-type: none"> Open the flush valve and initiate flow into the filter at low pressure, ≤ 0.03 MPa (0.3 bar, 5 psi). Gently ramp up the pressure and allow the filter to flush for 2-3 minutes at approximately 0.03 MPa (0.3 bar, 5 psi) (or flush minimum 2 L). Close the flush valve.
3	Start the bubble point test.

Performing bubble point test

Step	Action
1	Adjust the test stand for bubble point test by immersing the outlet or tubing connected to the outlet below the test fluid surface in a suitable container for viewing a stream of bubbles.
2	Open the gas valve and slowly ramp the pressure to 0.03 MPa (0.3 bar, 5 psi) and hold for 30 seconds.

Step Action

- 3 Slowly increase the pressure at a rate of 0.14 MPa (1.4 bar, 20 psi) per minute until you reach the minimum bubble point and hold for another 30 seconds. A steady stream of bubbles at or during the 30 second hold indicates an integral product.

Note:

The bubble point is the pressure at which you observe a steady stream of bubbles forming out of the end of the outlet. If you observe a rush of tiny bubbles that cease during the pressure hold or during the pressure ramp up, that may not be the bubble point but some residual trapped air downstream of the wetted membrane. Continue the procedure, observing for a steady stream of bubbles.

Note:

If you observe a steady stream of bubbles below the anticipated bubble point, the filter may not have wet properly. Return to step 2 in Preparing integrity test to flush the filter. If using water, it may aid wetting to warm the water to 79°C (175°F).

Note:

If a steady stream of bubbles is not observed and it is desired to take the filter to the bubble point, resume increasing the pressure at a rate of 0.14 MPa (1.4 bar, 20 psi) per minute until a steady stream of bubbles is observed and record that pressure.

Filtering solution

Step	Action
1	Press the tubing over the stepped barb inlet and secure with band clamp. Repeat with the outlet if using for an in-line application.
2	Fill the filter slowly and at a low pressure, allowing air to escape through the outlet until the filter is filled with fluid.
3	Ramp the pressure slowly until the desired flow rate is achieved, taking care not to exceed the maximum operating pressure of the filter.
4	When filtration is complete, make sure to release all pressure from the test stand before loosening band clamps and removing tubing from the filter.

Ordering information

Product Code	Product Name	Qty./Pk.
6724-5002	Polydisc AS 0.2 μ m, irradiated	10
6724-5045	Polydisc AS 0.45 μ m, irradiated	10
6724-5145	Polydisc AS 0.45 μ m, non-sterile	10



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