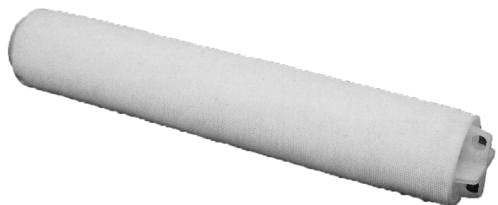


# 3M™ 740B Series

## High Throughput Filter Cartridges

### 3M™ 740B Series High Throughput Filter Cartridge



### Features, Advantages & Benefits

3M™ 740B series high throughput filter cartridge, which incorporates the radial pleat, puts an extraordinary amount of surface area into a single cartridge. This results in the following:

- High loading capacity for long life and lower cost filtration.
- Fewer cartridges for fewer change-outs and lower labor cost.
- Fewer seals, reduced risk of by pass resulting in high quality filtration.
- Extremely low disposal costs, less than a tenth of some cartridges.

Double O-ring seals in a variety of material options means:

- Extremely low risk of by pass for high quality fluids.
- No loose parts to assemble for easy installation, thus less labor cost.
- No springs and caps to lose reduces the risk of by pass.
- Broad chemical compatibility for many applications.
- Convenient handle for easy manual or mechanical removal.

### Applications

Prefilters or Final Filters for:	Acids and bases	Machine coolants
	Amines	Makeup water
	Carbon beds	Organic solvents
	Completion fluids	Photo chemicals
	Deep wells	Plating solutions
	Desalination	RO membranes
	DI resins	Storm Water
	EDM Fluids	UF membranes
	Glycol	Wastewater
	Groundwater clean-up	Waterflood
	Laundry water	Workover fluids

### Materials Of Construction

#### Filter Media:

Melt blown polypropylene microfiber filter media provides high particle removal efficiency for high quality filtration with broad chemical compatibility.

No silicone is intentionally used in materials of construction or in manufacturing.

The raw materials composing these filters are FDA compliant according to CFR Title 21.

#### O-rings:

Model Number	Material	Material
7010		FDA Buna N (standard)

Other O-rings are available, please consult factory

### Performance Data

#### Loading Capacity

Model Number	742B	743B	744B	745B	746B	747B	748B	749B
Pounds at 40 gpm	16.1	21	23.5	23.8	23.5	24	24	24
Kilograms at 9 cu m/hr	7.3	9.5	10.7	10.8	10.7	11	11	11

#### Loading:

The data above shows typical loading capacities of the different micron rated filters. Loading capacity is determined by challenging a filter with a dispersion of silica test dust in water at the recommended flow rate. Pressure drop is monitored and testing is terminated at 50 psid (3.4 bar). 3M 742B series is terminated at 35 psid (2.4 bar). The loading capacity reported is the dry weight gain of the bag.

#### Particle Removal Efficiency (microns)

Model Number	742B	743B	744B	745B	746B	747B	748B	749B
Efficiency @ 99%	1	2	5	10	15	25	40	70
Efficiency @ 95%	0.9	1.1	2.5	8	9	13	24	43
Efficiency @ 90%	0.8	0.9	1.7	6	8	10	19	35
Efficiency @ 70%	<0.7	0.7	1.5	3.5	6	8	13	24
Efficiency @ 50%	<0.7	<0.7	1.1	1.5	4.0	4.5	8	14

#### Efficiency:

3M 740B series high throughput filter cartridges are rated using a silica test challenge in water at 40 gpm (9 cu m/hr). The results reported are typical initial efficiencies taken within ten minutes of the start of the test.



**Clean Pressure Drop Versus Flow Rate (psid)**

Model Number	742B	743B	744B	745B	746B	747B	748B	749B
$\Delta p$ Dp @ 20 gpm	0.6	0.4	0.2	0.1	0.1	0.1	0.08	0.06
$\Delta p$ Dp @ 40 gpm	1.1	0.8	0.4	0.3	0.2	0.2	0.16	0.13
$\Delta p$ Dp @ 60 gpm	2.2	1.1	0.5	0.4	0.3	0.3	0.25	0.20
$\Delta p$ Dp @ 80 gpm	2.9	1.5	0.7	0.6	0.4	0.4	0.33	0.27

**Pressure Drop:**

The 3M™ 740B series high throughput filter cartridges have low initial pressure drop ( $\Delta p$ ) in water, as the table indicates. The table does not include the pressure drop of the vessel.

**Operating Conditions**

Maximum Operating Temperature	160° F (70° C)
Recommended Flow (in water)	40 gpm (9 cu m/hr)
Maximum Flow (in water):	
742B & 743B	60 gpm (14 cu m/hr)
744B - 749B	80 gpm (18 cu m/hr)
Maximum Differential Pressure:	
742B	35 psid (2.4 bar)
743B - 749B	50 psid (3.4 bar)

**Disposal:**

Disposal of used filter bags must comply with applicable federal, state and local laws and regulations.

**Clean Pressure Drop Versus Flow Rate (psid)**

Model Number	Micron Rating Initial Efficiency	Part Number	NSF/ANSI Standard 61	Length	Outer Diameter	Cartridges per Case
742B	1 micron @ 99%	70-0708-1552-0	See NSF note below	39 in (100 cm)	6.5 in (16.5 cm)	1
743B	2 micron @ 99%	70-0702-3124-9				
744B	5 micron @ 99%	70-0702-3125-6				
745B	10 micron @ 99%	70-0702-3126-4				
746B	15 micron @ 99%	70-0702-3127-2				
747B	25 micron @ 99%	70-0706-2356-9	No			
748B	40 micron @ 99%	70-0706-2357-7				
749B	70 micron @ 99%	70-0706-2358-5				

**Important Notice**

The information described in this literature is accurate to the best of our knowledge. A variety of factors, however, can affect the performance of the Product(s) in a particular application, some of which are uniquely within your knowledge and control. **INFORMATION IS SUPPLIED UPON THE CONDITION THAT THE PERSONS RECEIVING THE SAME WILL MAKE THEIR OWN DETERMINATION AS TO ITS SUITABILITY FOR THEIR USE. IN NO EVENT WILL 3M PURIFICATION INC. BE RESPONSIBLE FOR DAMAGES OF ANY NATURE WHATSOEVER RESULTING FROM THE USE OF OR RELIANCE UPON INFORMATION.**

It is your responsibility to determine if additional testing or information is required and if this product is fit for a particular purpose and suitable in your specific application.

**3M PURIFICATION INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.**

**Limitation of Liability**

3M Purification Inc. will not be liable for any loss or damage arising from the use of the Product(s), whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you.



**3M Purification Inc.**  
 400 Research Parkway  
 Meriden, CT 06450  
 U.S.A.  
 Phone (800) 243-6894  
 (203) 237-5541  
 Fax (203) 630-4530  
 www.3Mpurification.com



Component

3M™ 740B Series 742B, 743B, 744B, 745B, and 746B are tested and certified by NSF International against NSF/ANSI Standard 61 for material requirements only.

Your Local Distributor:

Please recycle. Printed in U.S.A.  
 3M is a trademark of 3M Company.  
 © 3M 2011. All rights reserved.  
 70-0708-1290-7 REV 1111b