

# 3M™ PERP-740KF Series

## High Flow Filter Cartridges



### Features Advantages & Benefits

The 3M™ PERP-740KF series high flow filter cartridge 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 bypass resulting in high quality filtration.
- 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 bypass.
- Broad chemical compatibility for many applications.
- Convenient handle for easy manual or mechanical removal.

### Applications

- |                     |                    |
|---------------------|--------------------|
| • Carbon beds       | • Jet fuel         |
| • Completion fluids | • Kerosene         |
| • Desalination      | • Lubricating oils |
| • Diesel fuel       | • Machine coolants |
| • Fuel Transfer     | • Machine oils     |
| • Gasoline          | • Organic solvents |
| • Hydraulic oil     |                    |

\*It is recommended that you contact your distributor for polyester samples to evaluate chemical compatibility.

### Materials of Construction

#### Filter Media:

Polyester 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.

#### O-rings:

Model Number	Material
7010	FDA Buna N (standard)
7011	Ethylene Propylene Rubber
7012	PTFE Encapsulated Silicone
7013	FDA Silicone
7014	Fluoroelastomer

### Performance Data

#### Loading Capacity

Model Number	PERP - 747KF	PERP - 749KF
Pounds at 40 gpm	14.9	25.0
Kilograms at 9 cu m/hr	6.7	11.3

**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). The loading capacity reported is the dry weight gain of the cartridge.

#### Particle Removal Efficiency (microns)

Model	742B30	743B30
Efficiency @99%	20	60
Efficiency @95%	13	38
Efficiency @90%	11	30
Efficiency @75%	8	19
Efficiency @50%	5	12

**Efficiency:** The 3M™ PERP-740KF series high flow 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	PERP - 747KF	PERP - 749KF
$\Delta p$ @ 20 gpm	0.1	0.1
$\Delta p$ @ 40 gpm	0.2	0.2
$\Delta p$ @ 60 gpm	0.4	0.4
$\Delta p$ @ 80 gpm	0.5	0.5

**Pressure Drop:** The 3M™ PERP-740KF series high flow 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 (check compatibility charts or conduct a soak test for specific fluids)	240° F (115° C)
Recommended Flow (in water):	40 gpm ( 9 cu m/hr)
Suggested Maximum Flow (in water):	80 gpm (18 cu m/hr)
Suggested Maximum Differential Pressure:	50 psid (3.4) bar

## Disposal

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

## Product Specifications

Model Number	Micron Rating Initial Efficiency	Part Number	NSF/ANSI Standard 61	Length	Outer Diameter
PERP - 747KF	20 micron @ 99%	70-0708-1450-7	39 in (100 cm)	6.5 in (16.5 cm)	1
PERP - 749KF	60 micron @ 99%	70-0708-1451-5			

\*740B30 Series Filter Models 742B30, 743B30, 744B30, 745B30, and 746B30 are tested and certified by NSF International against NSF/ANSI Standard 61 for material requirements only.

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70-0708-1470-5 REV 1111b