

Profile® II Filters

Applications

CMP slurry, Photochemicals, Plating solution, Acids, Alkalis, Solvents, DI water, Paints, Photoresists

Description

Profile II filters are all polypropylene innovative depth filters. The fibers in Profile II filters may be considered continuous. No binder resin is used – the fibers are "bonded" by intertwining during the manufacturing process. As a result, Profile II filters show no media migration. Profile II filters can be expected to yield longer service life and lower your total filtration costs.

Revolutionary Cartridge Construction

Outer section

(Tapered pore structure: longer service life)
This section has a continuously graded pore structure for built-in prefiltration. With its tapered pore structure and its depth combine to provide long life in service.

Inner section

(Constant pore: reliable filtration)
The constant pore size provides reliable filtration.

Features

- Excellent removal efficiency
- No media migration
- Low pressure drop
- High contaminant holding capacity
- Low extractables (no binders or resins)
- Broad chemical compatibility

Specifications

Materials of Construction

| Components | Materials |
|------------------------------------|--------------------|
| Filter medium | Polypropylene |
| Core | Polypropylene |
| Endcaps and cage (MCY, AB type) | Polypropylene |
| Sealing methods (RMF type) | Santoprene¹ rubber |

¹ Santoprene is a trdemark of Exxon Mobil Corporation.

Operating Conditions

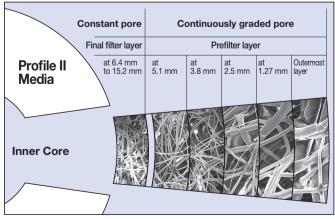
| Maximum Temperature ² | 82 °C / 180 °F |
|----------------------------------|--|
| Maximum Differential Pressure | 0.41 MPa (< 30 °C) 0.34 MPa (< 50 °C) 0.21 MPa (< 70 °C) 0.10 MPa (< 82 °C) |

2 Consult your local Pall representative on the condition at high temperature over 49 °C.



| Configulation | Housing |
|---------------|--|
| RF type | R type housing |
| MCY type | M type housing |
| RMF type | M type housing |
| AB type | A type housing with the same O-ring code |

Tapered Pore Structure³



3 Shown above are sample sections of Profile II filter medium from a typical Profile II cartridge at 300X.

Profile II Filters

Part Numbers / Ordering Information

RF type : R 1 F 2 MCY type : MCY100 1 Y 2 3

RMF type : RM 1 F 2 H21 AB type : AB 1 Y 2 4 5

Table 1 (mm) (mm)

| | Cartridge Nominal Length | | | | | | Cartric | |
|------|--------------------------|------|-----|------|------|------|-------------------|---|
| Code | Nominal Length | RF | RMF | MCY | AB | Туре | Outer diameter | I |
| 1 | 10" | 254 | 254 | 245 | 258 | RF | 64 | 2 |
| 2 | 20" | 510 | 509 | 505 | 506 | RMF | 64 | 2 |
| 298 | 30" | = | 764 | - | - | MCY | 70 | 2 |
| 3 | 30" | 768 | - | 760 | 753 | AB | 70 | 2 |
| 44 | 40" | 1022 | - | 1018 | 1001 | | | |

| | Cartridge | | Endcaps Inner diameter | |
|---------------------|-----------|-------------------|---------------------------|--|
| Type Outer diameter | | Inner diameter | | |
| RF | 64 | 28 | - | |
| RMF | 64 | 28 | - | |
| MCY | 70 | 28 | 26 | |
| AB | 70 | 28 | - | |

Table 2

| | Removal ratings | | | Typical Clean Pressure Drop | |
|--------------------|--|--------|--------------------|-----------------------------|------------------------------|
| Cartridge Grade | Liquid Service Rating in um at % Efficeincy⁵ | | | ficeincy⁵ | Flow rate : 10 L/min (Water) |
| Grade | 90 % | 99 % | 99.9 % | 99.98 % | kPa |
| 003 | < 0.56 | < 0.56 | < 0.5 ⁶ | < 0.5 ⁶ | 64 |
| 005 | < 0.56 | < 0.56 | < 0.56 | 0.56 | 51 |
| 007 | < 0.56 | < 0.56 | < 0.5 ⁶ | 0.76 | 49 |
| 010 | < 0.56 | < 0.56 | < 0.56 | 1.0 | 47 |
| 020 | < 1.06 | 1.0 | 1.5 | 2.0 | 35 |
| 030 | < 1.06 | 1.8 | 2.5 | 3.0 | 27 |
| 050 | 2.0 | 3.0 | 4.0 | 5.0 | 15 |
| 070 | 3.5 | 5.0 | 6.0 | 7.0 | 9 |
| 100 | 6.5 | 7.5 | 9.0 | 10.0 | 6 |
| 120 | 7.0 | 9.0 | 11.0 | 12.0 | 4 |
| 150 | 8.0 | 10.0 | 13.0 | 15.0 | 3 |
| 200 | 10.0 | 14.0 | 18.0 | 20.0 | 1.8 |
| 300 | 14.0 | 18.0 | 26.0 | 30.0 | 1.5 |
| 400 | 20.0 | 30.0 | 35.0 | 40.0 | < 1 |
| 700 | 32.0 | 50.0 | 70.0 | - | < 1 |
| 900 | 50.0 | 78.0° | 90.06 | - | < 1 |
| 1200 | 60.0 | 100.06 | 120.0 ⁶ | | < 1 |

⁵ Tested by ISO16889 F2 method (β - 5,000)

Table 3

| Code | Gasket Opetions |
|------|-----------------|
| H13 | NBR (standard) |
| J | EPDM |
| Н | Fluoroelastomer |
| H4 | Silicone |
| H21 | Santoprene |
| | |

Table 4

| Code | O-ring Size | | |
|------|--------------|--|--|
| 7 | AS568A - 226 | | |
| 8 | AS568A - 222 | | |
| 20 | AS568A - 226 | | |

Table 5

| Code | O-ring Opetions |
|------|---------------------|
| H4 | Silicone (standard) |
| Н | Fluoroelastomer |
| J | EPDM |

⁴ Custom-order products

⁶ Extrapolated values



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of the following patent numbers: US5133878; EP0433661

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