

3M Separation and Purification Sciences Division Data Sheet

3M[™] Betafine[™] PEG Series Pleated Polypropylene Graded Porosity Filter Cartridges

3M[™] Betafine[™] PEG Series Filter Cartridges were designed to provide high dirt-holding capacity and flow rates with relatively low pressure drop for a wide array of applications for electronics manufacturing and chemical production. These are absolute rated, graded porosity, 100% polypropylene pleated filter cartridges. 3M Betafine PEG Series Filter Cartridges utilize 3M's Advanced Pleat Technology (APT) that increases the usable filtration surface area while maintaining standard cartridge dimensions. PEG series cartridges are ideally suited for applications requiring filtration efficiencies from 10.0 µm down to 0.2 µm filter rating.

Features & Benefits

Polypropylene Cartridge Components

- Free of adhesives and surfactants
- · Very low extractable levels for optimum filtrate purity
- Broad chemical compatibility for most process applications

Advanced Pleat Technology Construction

- High surface area as compared to conventional pleated filters
- High product throughputs for prolonged service life
- High flow rates with relatively low pressure drop

Graded Porosity Multi-layer Filter Media

- Capture of contaminant throughout the filter media to help maximize filter life
- High contaminant holding capacity



Graph 2: Clean Water Flow per 10 in. 3M[™] Betafine[™] PEG Series Filter Cartridge at Ambient Temperature (20°C).



Applications

3M[™] Betafine[™] PEG Series Filter Cartridges are ideal for a wide array of applications for electronics manufacturing and chemical production.

- Plating solutions
- Cleaning baths
- High purity chemicals
- Acids
- Bases
- Solvents
- Polymer solutions
- CMP slurry filtration for LPC reduction
- High purity water

Materials of Construction

3M[™] Betafine[™] PEG Series Filter Cartridges are constructed of high efficiency, graded porosity pleated polypropylene. The outer cage, inner core, end cap adapters and membrane support layers are made of polypropylene. No adhesives, binders, or surfactants are used in the manufacturing process. Filter cartridges are manufactured and bagged in a clean environment under an ISO quality system to provide filter integrity and excellent downstream cleanliness.

Operating Parameters & Specifications

Materials of Construction					
Filter Media	Graded Porosity Pleated Polypropylene				
Media Support Layers	Polypropylene				
Inner Core, Outer Cage, End Cap Adapters	Polypropylene				
Gasket & O-ring Options	Silicone, Clear Silicone, EPR, PTFE Encapsulated Silicone, PTFE Encapsulated Fluorocarbon				
Nominal Length	10 in., 20 in., 30 in., 40 in.				
Filtration Surface Area	Grade 0.20	8.1 ft. ² (0.75 m ²)			
	Grades 0.60, 1.20, 2.50	8.8 ft. ² (0.82 m ²)			
	Grade 5.0	8.6 ft. ² (0.80 m ²)			
	Grade 10	5.5 ft. ² (0.51 m ²)			
Outer Diameter	2.75 in. (7.1 cm)				
Maximum Operating Temperature	130°F (60°C) continuous, 175°F (80°C) short term				
Maximum Forward Pressure Differential	60 psid at 77°F (4 bar at 25°C)				

3M[™] Betafine[™] PEG Series Filter Cartridge Ordering Guide

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			Description		
Model Number	3M ID	Global ID	Length	Grade	End Treatments
PEG020B01CX	70-0202-5050-5	7000051322	10 in.	0.2 µm	222 O-ring/Spear PTFE Encapsulated Silicone
PEG020B01FA	70-0200-7313-9	7010410989	10 in.	0.2 µm	222 O-ring/Flat Cap Silicone
PEG020B01FC	70-0200-7314-7	7100079635	10 in.	0.2 µm	222 O-ring/Flat Cap EPR
PEG020B01FK	70-0200-7315-4	7000001724	10 in.	0.2 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG020B02BA	70-0200-7316-2	7000050667	20 in.	0.2 µm	226 O-ring/Spear Silicone
PEG020B02DA	70-0201-0749-9	7000050753	20 in.	0.2 µm	Double Open End Silicone
PEG020B02FK	70-0203-4869-7	7100180236	20 in.	0.2 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG020B03BA	70-0200-7322-0	7000050669	30 in.	0.2 µm	226 O-ring/Spear Silicone
PEG060B01BA	70-0200-7325-3	7000050670	10 in.	0.6 µm	226 O-ring/Spear Silicone
PEG060B01EA	70-0200-7328-7	7000050672	10 in.	0.6 µm	Double Open End Silicone
PEG060B01FK	70-0200-6846-9	7000001711	10 in.	0.6 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG060B02BA	70-0200-7330-3	7000050674	20 in.	0.6 µm	226 O-ring/Spear Silicone
PEG060B02BB	70-0200-7331-1	7000027565	20 in.	0.6 µm	226 O-ring/Spear Fluorocarbon
PEG060B02EA	70-0200-7334-5	7000050676	20 in.	0.6 µm	Double Open End Silicone
PEG060B02FA	70-0200-7335-2	7000050677	20 in.	0.6 µm	222 O-ring/Flat Cap Silicone
PEG060B02FK	70-0202-1889-0	7000001821	20 in.	0.6 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG060B03BK	70-0200-7336-0	7100111882	30 in.	0.6 µm	226 O-ring/Spear PTFE Encapsulated Fluorocarbon
PEG120B01BX	70-0202-5529-8	7000051345	10 in.	1.2 µm	226 O-ring/Spear PTFE Encapsulated Silicone
PEG120B01EB	70-0201-6306-2	7000051062	10 in.	1.2 µm	Double Open End Fluorocarbon
PEG120B01FK	70-0203-4868-9	7100180237	10 in.	1.2 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG120B01FX	70-0202-7553-6	7000051421	10 in.	1.2 µm	222 O-ring/Flat Cap PTFE Encapsulated Silicone
PEG120B02BA	70-0200-6848-5	7000050616	20 in.	1.2 µm	226 O-ring/Spear Silicone
PEG120B02BC	70-0201-1696-1	7000050831	20 in.	1.2 µm	226 O-ring/Spear EPR
PEG120B02CH	70-0201-6182-7	7010413430	20 in.	1.2 µm	222 O-ring/Spear Clear Silicone
PEG120B02EA	70-0200-7345-1	7000050682	20 in.	1.2 µm	Double Open End Silicone
PEG120B02FK	70-0202-1890-8	7000001822	20 in.	1.2 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG120B03CC	70-0200-7347-7	7000029320	30 in.	1.2 µm	222 O-ring/Spear EPR
PEG120B03FA	70-0200-6850-1	7000050617	30 in.	1.2 µm	222 O-ring/Flat Cap Silicone
PEG120B04BB	70-0200-7348-5	7000050684	40 in.	1.2 µm	226 O-ring/Spear Fluorocarbon
PEG250B01BA	70-0200-7349-3	7000050685	10 in.	2.5 µm	226 O-ring/Spear Silicone
PEG250B01FK	70-0203-4791-3	7100182153	10 in.	2.5 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG250B02CH	70-0200-7353-5	7010415616	20 in.	2.5 µm	222 O-ring/Spear Silicone
PEG250B02DN	70-0202-1440-2	7000051175	20 in.	2.5 µm	Double Open End
PEG250B03FA	70-0201-1699-5	7000050832	30 in.	2.5 µm	222 O-ring/Flat Cap Silicone
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3M[™] Betafine[™] PEG Series Filter Cartridge Ordering Guide (cont.)

			Description		
Model Number	3M ID	Global ID	Length	Grade	End Treatments
PEG500B01FK	70-0203-4792-1	7100181967	10 in.	5.0 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG500B02BA	70-0201-2212-6	7000050893	20 in.	5.0 µm	226 O-ring/Spear Silicone
PEG500B02BX	70-0202-6859-8	7000051411	20 in.	5.0 µm	226 O-ring/Spear PTFE Encapsulated Silicone
PEG500B02FA	70-0200-7359-2	7000050687	20 in.	5.0 µm	222 O-ring/Flat Cap Silicone
PEG500B02FK	70-0202-6908-3	7000001856	20 in.	5.0 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG500B04BC	70-0203-1764-3	7100028834	40 in.	5.0 µm	Single Open End EPR
PEG10CB01BA	70-0202-3162-0	7000051224	10 in.	10.0 µm	226 O-ring/Spear Silicone
PEG10CB01CC	70-0200-7337-8	7010379646	10 in.	10.0 µm	222 O-ring/Spear EPR
PEG10CB01FK	70-0202-3431-9	7000001835	10 in.	10.0 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG10CB02CC	70-0201-7025-7	7010338509	20 in.	10.0 µm	222 O-ring/Spear EPR
PEG10CB02FK	70-0203-5049-5	7100199166	20 in.	10.0 µm	222 O-ring/Flat Cap PTFE Encapsulated Fluorocarbon
PEG10CB03CC	70-0201-7102-4	7010380397	30 in.	10.0 µm	222 O-ring/Spear EPR
PEG10CB04CA	70-0200-7339-4	7000050678	40 in.	10.0 µm	222 O-ring/Spear Silicone

Intended Use: 3M[®] Betafine[®] PEG Series products are intended for use in industrial filtration applications of aqueous fluids in accordance with the applicable product instructions and specifications. 3M Betafine PEG Series products are also intended for use with non-aqueous fluids where materials of construction are compatible. Since there are many factors that can affect a product's use, the customer and user remain responsible for determining whether the 3M product is suitable and appropriate for the user's specific application, including user conducting an appropriate risk assessment and evaluating the 3M product in user's application.

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Your local distributor:

3M Purification Inc. 3M Separation and Purification Sciences Division 400 Research Parkway Meriden, CT 06450 USA

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