

Vanguard®

MN Mini Capsule

Description

The Vanguard® MN grade pleated polypropylene meltblown filter capsule is manufactured using high quality components that are nontoxic and biologically inert.

Materials of Construction

All components of the Vanguard® mini capsule are either animal free or in compliance with EMEA/410/01 Rev. 3 (EDQM 5.2.8 07/2011:50208), and US Code of Federal Regulations 9 CFR 94.18 and 21 CFR 189.5. These materials are listed for food contact use in the Code of Federal Regulations (CFR), Title 21, as below:

Media:	Polypropylene	CFR Title 21, 177.1520
Upstream support:	Polypropylene	CFR Title 21, 177.1520
Downstream support:	Polypropylene	CFR Title 21, 177.1520
Outer guard:	Polypropylene	CFR Title 21, 177.1520
Core:	Polypropylene	CFR Title 21, 177.1520
End caps:	Polypropylene	CFR Title 21, 177.1520
Capsule housing:	Polypropylene	CFR Title 21, 177.1520
Sealing method:	Thermal bonding	

Pore Size Ratings (Nominal) 0.1, 0.2, 0.4, 1, 3, 5, 10, 30, 60, 99 microns

Operating Characteristics

Operating temperature range: 32 °F to 122 °F (0 °C to 50 °C)
Maximum operating pressure (gas service): 100 psig (6,9 bar)

Sterilization

Autoclave: 121 to 135 °C (15 to 30 psi, 1 to 2 bar), 30 to 60 min, ≥ 3 cycles.
Capsules must not be steamed in place (SIP).

Biological Safety

Vanguard® filters meet the requirements as specified in the current USP Class VI plastics biological reactivity tests. No binders, adhesives or surfactants are used in the construction of Vanguard® filters. Filters comply with Commission Regulation (EU) No 10/2011.

Quality Assurance

Vanguard® filters comply with the Food and Drug Administration Code of Federal Regulations, Title 21, Parts 210 and 211. Product is manufactured and packaged in a cleanroom facility that, through voluntary compliance, meets or exceeds FDA Good Manufacturing Practice Standards. To ensure product reliability, Meissner's Quality Assurance staff continually audits the manufacturing process for conformance to its Quality Management System. Each Vanguard® filter is clearly marked with filter type, lot number and serial number.

Ordering Guide

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Capsule Options	
Standard capsule	C

Vent / Drain Ports	
0	No vent / drain port
1	One luer port with cap, inlet side
2	Standard; two luer ports with caps
4	Two sanitary valves with hose barbs
5	One sanitary valve with hose barb, inlet side
6	One sanitary valve with hose barb, outlet side

Effective Filtration Area (nominal)	
0.36 ft ² (335 cm ²)	K
0.29 ft ² (270 cm ²)	M

Inlet/ Outlet Connections	
11	1/4" hose barb (HB)
1B	1/4" hose barb (HB) w / filling-bell
22	3/8" hose barb (HB)
2B	3/8" hose barb (HB) w / filling-bell
44	1/4" MNPT
71	3/4" sanitary (TC) flange inlet, 1/4" hose barb outlet
72	3/4" TC inlet, 3/8" hose barb (HB) outlet
77	3/4" sanitary flange

Housing Material Designator	
Animal component free (ACF) polypropylene	2

Product	Filter Grade	Retention Rating
Vanguard® polypropylene microfiber media	MN	0.1, 0.2, 0.4, 1, 3, 5, 10, 30, 60, 99

Additional information about Vanguard® filter products is available in the Green Docs document which is viewable at <https://www.meissner.com/downloads/vanguard-gd009-2.0.pdf>

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