

Industrial UF Spiral-Wound E-Coat Element: V3 (PVDF 30kDa)

Synder Filtration is a leading supplier of Ultrafiltration (UF) membranes and complete systems to the E-Coat industry worldwide. With a full range of molecular weight cutoffs and element sizes for both cathodic and anodic paint baths, Synder can outfit any E-Coat paint line with reliable ultrafiltration membrane elements.

MEMBRANE SPECS

Model	Polymer	Approx. Molecular Weight Cutoff
V3	PVDF	30,000

COMMON APPLICATIONS

- Cathodic electrocoat paint
- Industrial water processes

RECOMMENDED OPERATING PARAMETERS

Operating Parameters	
Typical Operating Flux	5-35 GFD (8-60 LMH)
Membrane Type	Proprietary PVDF
Membrane Construction	Round shell net or FRP
Membrane Temperature	Continuous Operation: 122°F (50°C) Clean-In-Place (CIP): 110°F (43.3°C)
pH Range	Continuous Operation: 1-11 Clean-In-Place (CIP): 2-10.5
Maximum Pressure Drop	FRP Element: 35psi (241kPa) Net Wrap Element: 17psi (117kPa)
Chlorine Tolerance	180ppm maximum per cleaning cycle

COMPREHENSIVE TECHNICAL SUPPORT

- Paint/MEQ Analysis
- On-site Flow Analysis
- UF System Optimization
- Analyte System Optimization
- Personalized Technical Support



V-SERIES FEATURES & BENEFITS

- The V-Series has a proprietary positive charge to repel paint particles, promote maximum flux rates, and reduce fouling.
- Membrane only requires one cleaning chemical plus acid. No other additives required.
- Integrated end plugs allow for easy integration and removal.
- Synder maintains a large portion of E-Coat devoted sales, engineering, and staff compared to other membrane manufacturers worldwide.

CONTACT US



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ELEMENT DIMENSIONS & WEIGHT

Model #	Body Length (mm)	Element OD (mm)	ID Perm Tube ID (mm)	OD Perm Tube (mm)	Tube Ext Length (Male)	Feed Rate GPM (lpm)	Standard Housing
1812TM	10.00" (254)	1.8" (46)		0.675" (17)	0.75" (perm) 1.0" (plug)	2.0 (7.6)	IH-1812
2519H	19.25" (489)	2.5" (63.5)	0.62" (15.8)			6.0 (23)	IH-2519
2540H	38.00" (965.2)	2.5" (63.5)		0.75" (19.1)	1.00" (both ends)	6.0 (23)	IH-2540
3940AH	38.80" (985.5)	3.93" (99.8)		0.827" (21)	0.60" (both ends)	25 (95)	
3945H	45.00" (1143)	3.93" (99.8)	0.62" (15.8)			25 (95)	
4030H	27.0" (658.8)	3.93" (99.8)		0.84" (21.3)	3.00" (perm) 3.63" (plug)	25 (95)	IH-4030
4032H	29.50" (749.3)	3.93" (99.8)		0.75" (19.1)	1.06" (both ends)	25 (95)	
4033H	33.00" (838.2)	3.93" (99.8)	0.62" (15.8)			25 (95)	
4037H	27.00" (685.8)	3.93" (99.8)		0.84" (21.3)	3.00" (perm) 8.625" (plug)	25 (95)	IH-KR4
4040AH	40.00" (1016)	3.93" (99.8)	0.62" (15.8)			25 (95)	
4040BH	40.00" (1016)	3.93" (99.8)	0.76" (19.3)			25 (95)	
4045BH	40.00" (1016)	3.93" (99.8)		0.84" (21.3)	3.00" (perm) 1.875" (plug)	25 (95)	IH-4042
4045CH	45.00" (1143)	3.93" (99.8)	0.62" (15.8)			25 (95)	
4051.5H	40.00" (1016)	3.93" (99.8)		0.84" (21.3)	3.00" (perm) 8.50" (plug)	25 (95)	IH-40RF
5640H	40.00" (1016)	5.60" (142.2)	1.29" (32.8)			40 (151)	
5647.5H	40.00" (1016)	5.60" (142.2)		1.66" (42.2)	3.00" (perm) 4.375" (plug)	40 (151)	IH-60A
5651.5H	40.00" (1016)	5.60" (142.2)		1.66" (42.2)	3.00" (perm) 8.375" (plug)	40 (151)	IH-60RF
7637H	33.00" (838.2)	7.45" (189.2)		1.66" (42.2)	2.00" (both ends)	70 (265)	
7640HB	40.00" (1016)	7.28" (184.9)	1.29" (32.7)			70 (265)	
7640HC	40.00" (1016)	7.28" (184.9)	1.29" (32.7)			70 (265)	
7647.5HB	40.00" (1016)	7.45" (189.2)		1.66" (42.2)	3.00" (perm) 4.375" (plug)	70 (265)	IH-80S
7647.5HC	40.00" (1016)	7.28" (184.9)		1.66" (42.2)	3.00" (perm) 4.375" (plug)	70 (265)	IH-80D(C,E)
7940HA	38.25" (717.6)	7.90" (200.7)		1.66" (42.2)	0.875" (both ends)	80 (303)	
F7940HA	40.00" (1016)	7.90" (200.7)	1.139" (28.9)			80 (303)	
8040H	40.00" (1016)	7.90" (200.7)	1.125" (28.6)			80 (303)	

Membrane Model	Industrial Designations
	H = Fiber Glass Shell
	T = Tape Wrapped
	HB = Stainless Steel Housing
	HC = PVC Housing
	HS = Fiber Glass Shell w/net
	HA = Version A
	HK = KPAK™ Retrofit
	HM = Male
	HF = Female
	N = Net Wrapped
	HS = Roundshell - Net Wrap

Spacer Size	Model No.
24 mil	1
31 mil	2
46 mil	3
65 mil	4
80 mil	5

NOTE: These designations may vary. Always consult Synder before ordering.

TECHNICAL NOTES

For element sizes not listed, please call or email Synder Filtration for details. We can design an element to fit your exact needs – just specify the element outer diameter (OD) or vessel/housing inner diameter (ID), element inner diameter (ID), and length. Additional feed spacers are also available.

RECOMMENDED ELEMENT CROSS FLOW RATE

Element		Feed Spacer (in mils)				
		24	31	46	65	80
1.8"	m³/hr	1	1	1	1	1
	gpm	3	3	4	4	5
2.5"	m³/hr	1	2	2	2	2
	gpm	6	7	8	9	9
4.0"	m³/hr	3	4	5	5	5
	gpm	15	17	20	23	24
8"	m³/hr	15	17	20	23	24
	gpm	66	75	89	99	105

*Note: The recommended cross flow rate will be subject to differential pressure limitations and specific applications.

MEMBRANE AREA (SQ. FT)

Element		Feed Spacer (in mils)				
		24	31	46	65	80
1812TM		3.1	2.7	2.1	1.6	1.3
2540M		26	22	19	14	12
2540F		27	23	20	15	13
4040M		77	67	54	43	36
4040F		79	69	56	45	38
8040F		365	317	250	193	166