

SYNAMELT - Filter Elements

SYNAMELT - Filter elements are wound cartridge filters with a deposition rate of 99.98% ($\beta=5000$). The fleece layers of these filter elements consist of fine microfibers, which are wound onto a support shell in a special process. To improve the stability of the filter elements, the outer fleece layers are wound several layers thick and welded. The production of the filter elements is carried out without the addition of binders or wetting agents.

SYNAMELT - Filter elements are FDA* approved and thus can be used in the food and beverage industry. Moreover, these elements are licensed under USP XXII Class VI.

*) United States Food and Drug Administration

The advantage of the **SYNAMELT - Filter elements** is the graded depth filtration. The outer fleece layers have a coarser pore structure, which leads to a prefiltration with high dirt-holding capacity and long filter life time. The middle fleece layers which have a finer pore structure already serve to determine fineness. The even finer fleece layers inside the filter elements guarantee the desired absolute fineness.



These filter elements are by default available in 16 different grades of fineness as well as in 9 different lengths.

By using different adapters, our **SYNAMELT - Filter elements** are applicable in almost all common filter housings.

Technical data

Initial differential pressure in a pure state	0.1 - 0.3 bar
Recommended differential pressure for filter change	1.5 - 2.0 bar
Permissible end differential pressure	5.0 bar at 20°C 4.0 bar at 35°C 2.0 bar at 80°C
Applications	

- ✓ Water treatment
- ✓ Chemical industry
- ✓ Pharmaceutical industry
- ✓ Electroplating / surface treatment
- ✓ Beverage and food industry
- ✓ Electronics industry
- ✓ Paint and coatings industry
- ✓ Cosmetics industry
- ✓ Petroleum industry
- ✓ Photographic industry
- ✓ Environmental technology
- ✓ Air and gas filtration

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Flow rate in l/min at a differential pressure of 0.2 bar
based on water (1 cp)

	Fineness in μm															
	0.4	0.5	0.7	1	2	3	5	7	10	15	20	30	40	50	70	90
10"	2	2	4	6	8	10	12	14	18	24	32	38	45	60	75	90
20"	4	4	8	12	16	20	24	28	36	48	64	77	90	90	90	90
30"	6	6	12	18	24	30	36	42	54	72	90	90	90	90	90	90
40"	8	8	16	24	32	40	48	56	72	90	90	90	90	90	90	90

Due to the inner diameter of the filter elements the flow rate is limited to max. 90 l/min.

Ordering information

Product group	Filter material	Fineness	Length	Adapter	Sealing
SM	PP	050	010	01	N

Product group	SM				
Filter material	PP	Polypropylene with polypropylene support shell			max. 90°C
	PE	Polyester with polyamide support shell			max. 140°C
Fineness (absolute) $\beta=5000$ (99,98%)	004	0.4 μm	050	5 μm	400 40 μm
	005	0.5 μm	070	7 μm	500 50 μm
	007	0.7 μm	100	10 μm	700 70 μm
	010	1.0 μm	150	15 μm	900 90 μm
	020	2.0 μm	200	20 μm	
	030	3.0 μm	300	30 μm	
Length	005	5" (127 mm)	019	19 1/2" (495 mm)	030 30" (762 mm)
	009	9 3/4" (248 mm)	020	20" (508 mm)	039 39" (991 mm)
	010	10" (254 mm)	029	29 1/4" (743 mm)	040 40" (1016 mm)
Diameter	outside	61 mm	inside	30,5 mm	
Adapter	00	without adapter			
	01	on both sides DOE with flat seals			
	03	double O-ring adapter 222 and end cap			
	08	double O-ring adapter 222 and center point			
	07	double O-ring adapter 226 and center point			
	02	double O-ring adapter 226 and end cap			
Sealing	N	NBR	E	EPDM	
	S	Silicone	V	Viton	