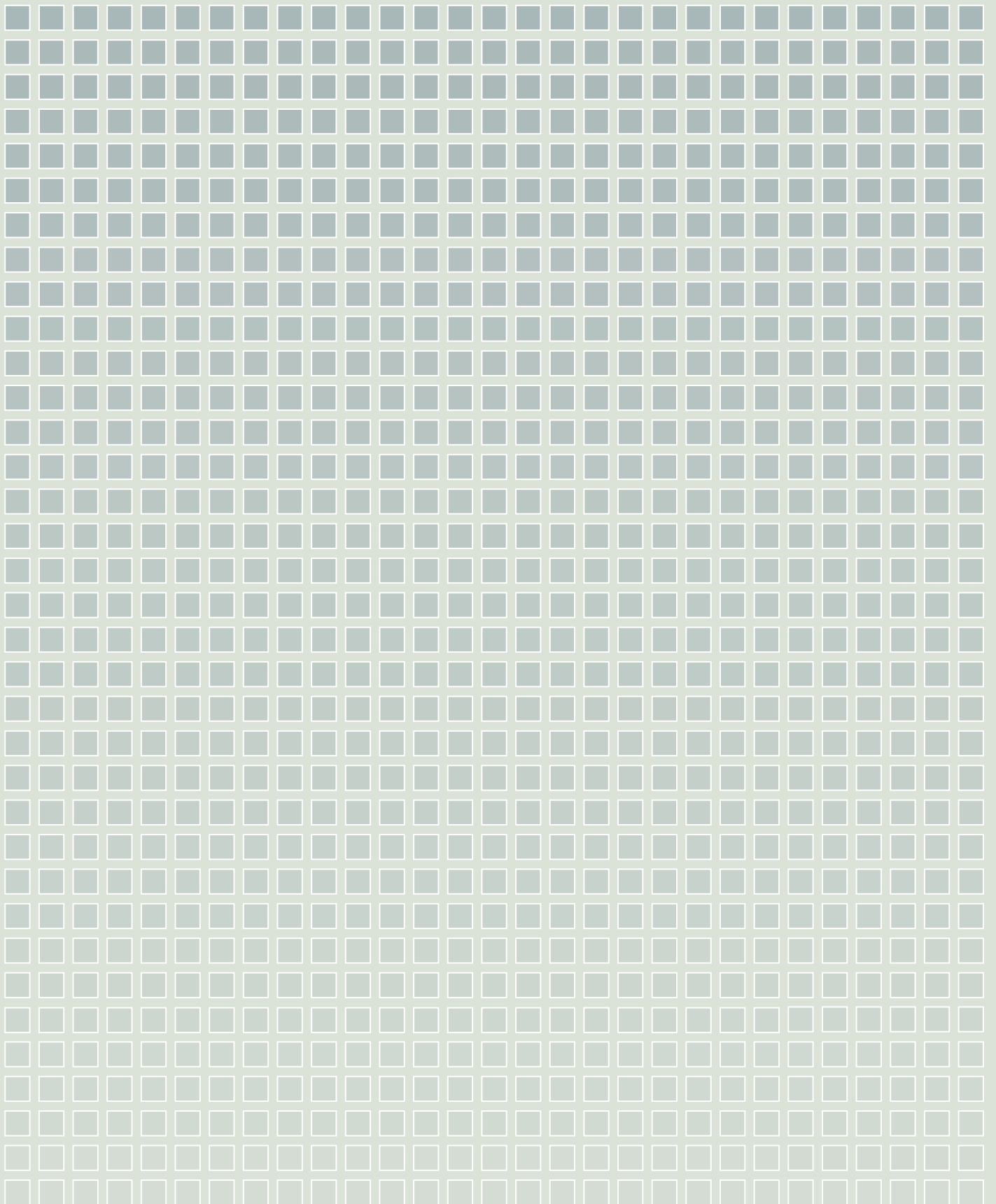




woven synthetic filter fabrics





woven synthetic filter fabrics

monofilament filter fabrics are ideal materials for sieving, straining or filtering most liquids, powders or sludges. The term 'Monofilament' means that each thread used in the construction of the cloth is a single smooth solid strand instead of many smaller diameter threads twisted together, as in a spun or multifilament material. These mono-filament threads are perfectly round in section and are extruded to very precise and uniform diameters.

Their advantages are:-

- A)** due to their uniformity they can be woven with great precision to give exact and regular apertures,
- B)** the resulting material has a very smooth surface so that the filtered particles will easily separate from it,
- C)** they have great strength and elasticity.

After weaving, our fabrics undergo a finishing process to add the properties required for specific applications. During the finishing process, the fabric is scoured to remove any foreign substances and the yarns are then stabilised within the weave in order to eliminate shrinkage by a process known as 'heat setting'.



materials

monofilament nylon 6.6 filter cloth

Monofilament Nylon is a versatile material due to its great strength, flexibility, long life and resistance to abrasion. Nylon has excellent resistance to most common solvents and will operate continuously at temperatures up to 100°C in the chemical pH range 7-14. Its chemical and physical properties are shown in the table below.

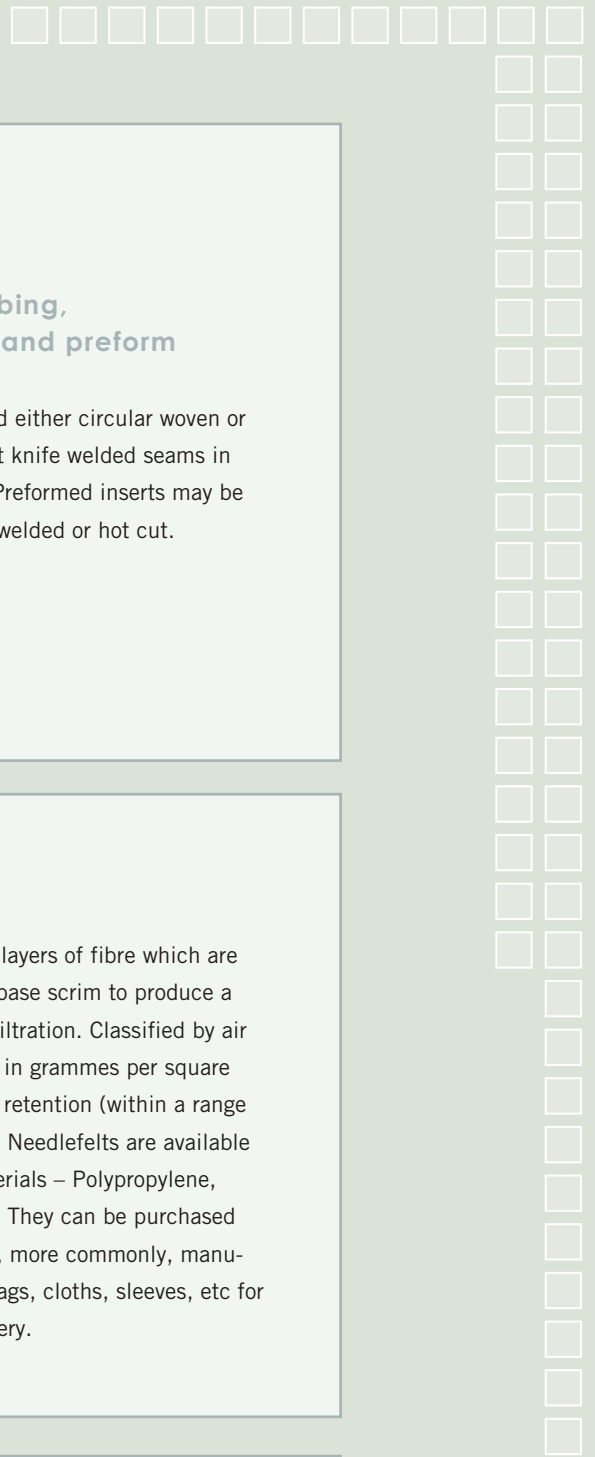
monofilament polyester filter cloth

Monofilament Polyester is particularly recommended for use in manufacturing conditions in excess of 100°C. It is suitable up to a maximum working temperature of 150°C in the chemical pH range 1-7.

alternative materials

Although Nylon and Polyester are satisfactory for most screening applications, we also have a range of Polyethylene, Polypropylene, PTFE, Silk, Nomex, etc.





woven filter tubing, strips (ribbon) and preform

This can be produced either circular woven or with ultrasonic or hot knife welded seams in all synthetic fibres. Preformed inserts may be either ultrasonically welded or hot cut.



needlefelts

Manufactured using layers of fibre which are 'needled' through a base scrim to produce a felt for wet and dry filtration. Classified by air permeability, weight in grammes per square metre, or by particle retention (within a range of 1 to 200 micron); Needlefelts are available in the following materials – Polypropylene, Nylon and Polyester. They can be purchased either in roll form or, more commonly, manufactured into filter bags, cloths, sleeves, etc for any make of machinery.



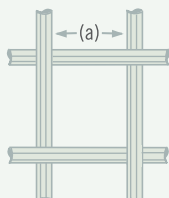
filter bags, sleeves, discs and screens

We produce a wide range of these products, catering for our customers' individual requirements as well as the standard designs. These can be made from any of our range of filter cloths, and we would be happy to quote against your specific drawing, sketch or sample. Some of our typical products are illustrated within this brochure.

bolting cloth	monodur® nylon normal					monodur® nylon light					monodur® polyester normal					monodur® polyester heavy duty					
	old fabric-no. grit gauze	fabric-no. mesh opening in mm	mesh count per cm	open area %	thread diameter in mm	weight g/m ²	fabric-no. mesh opening in mm	mesh count per cm	open area %	thread diameter in mm	weight g/m ²	fabric-no. mesh opening in mm	mesh count per cm	open area %	thread diameter in mm	weight g/m ²	fabric-no. mesh opening in mm	mesh count per cm	open area %	thread diameter in mm	weight g/m ²
	2000	3.8	58	630	300							2000	4.0	64	500	265	2000	3.8	58	630	363
	1900	3.9	56	630	290																
12	1800	4.3	60	530	250																
	1700	4.5	58	530	240																
14	1600	4.9	62	430	175							1600	4.9	61	430	212					
	1500	5.2	60	430	185																
	1400	5.5	59	430	195							1400	5.5	59	430	236	1400	5.3	55	500	350
16	1320	5.7	57	430	200																
	1250	6.2	60	370	174							1250	6.2	60	370	211					
18	1180	6.4	58	370	177																
	1120	6.7	57	370	181																
	1060	7.0	55	370	185																
20	1000	7.6	58	315	150							1000	7.6	58	325	182	1000	6.2	39	500	430
22	950	7.9	56	315	154																
	900	8.2	55	315	158							900	8.0	52	300	170					
24	850	8.6	53	315	164																
26	800	9.4	56	270	140							800	9.4	57	270	169					
	750	9.8	54	270	144																
28	710	10.2	52	270	149							710	10.2	52	270	188					
30	670	10.6	51	270	154																
	630	11.1	49	270	160							630	11.1	49	270	181					
32	600	11.5	48	270	165	600	13.3	64	150	74											
34	560	13.0	53	210	117							560	13.5	57	215	160					
36	530	13.5	51	210	121																
38	500	14.0	50	210	125							500	14.0	47	230	174					
40	475	14.7	48	210	132																
42	450	15.2	47	210	136																
44	425	15.8	45	210	140																
46	400	16.4	43	210	145	400	17.1	47	180	123		400	16.4	43	215	175	400	15.4	38	250	255
48	375	17.1	41	210	155																
50	355	19.4	48	160	112							355	19.4	48	160	155	355	16.0	32	250	285
52	335	20.2	46	160	115																
54	315	21.0	44	160	120							315	21.0	44	160	145	315	20	39	200	182
56	300	23.2	49	130	76																
58																					
60	280	24.4	47	130	82							280	24.4	47	130	93					
62																					
64	265	25.3	45	130	86	265	26.0	47	100	61		265	25.0	44	130	95					
66	250	26.3	43	130	89							250	26.3	43	130	99					
68																					
70	236	27.3	42	130	92																
72	224	30.4	46	105	76							224	30.4	46	105	93					
	212	31.5	45	105	78							212	29.0	38	130	108					
	200	32.8	43	105	80							200	32.8	43	105	97					
	190	37.0	50	80	51																
	180	38.5	48	80	53							180	37.0	44	90	90					
	170	40.0	46	80	56																
	160	42.0	44	80	58							160	42.0	45	80	70					
	150	43.5	43	80	59																
	140	45.0	40	80	60							140	45.0	40	80	73					
	132	47.0	39	80	63																
	125	49.0	37	80	66							125	49.0	38	80	80					
	118	51.0	36	80	68							118	56.0	43	60	52					
	112	52.0	34	80	72	112	62.0	48	50	34		112	60.0	45	60	65					
	106	55.0	34	75	60																
	100	56.0	33	75	62							100	56.0	31	70	75					
	95	58.0	31	75	63	95	69.0	48	50	37											
la Qual.	90	60.5	30	75	65							90	68.0	37	55	68					
	85	62.0	28	75	67	85	77	43	45	29											
	80	64.5	27	75	69							80	77.0	38	48	42	80	73.0	34	55	70
20																	75	68.0	27	70	70
	71	86.0	37	45	31							71	90.0	41	40	36	71	80.0	32	55	64
25	63	93.0	34	45	35	67	104.0	49	30	28		63	92.0	37	40	39	63	90.0	32	48	68
												60	100.0	36	40	40					
	56	100.0	31	45	38							56	110.0	38	35	33	56	90.0	25	55	72
												53	80.0	18	70	100					
	50	111.0	31	40	27							50	120.0	36	35	35	50	110.0	30	40	45
	45	118.0	28	40	30												45	120.0	29	40	48
	42.5	122.0	26	40	31																
						40	143.0	33	30	23		40	133.0	28	35	39	40	125.0	25	40	50
	37.5	129.0	23	40	34							37.5	90.0	11	70	104					
	35.5	143.0	25	35	25	35.5	153.0	29	30	24		35.5	142.0	25	35	41	35.5	130.0	21	40	52
	33.5	147.0	24	35	26																
	31.5	152.0	23	35	27							30	165.0	25	30	40	30.0	150.0	21	35	38
	30.0	165.0	25	30	30																
												22.4	180.0	16	30	53					
												20	185.0	15	30	45					

aperture sizes

Our standard filter cloths range from 2,000 micron to 3 micron aperture, the measurement being made across the square between the insides of adjacent threads, as shown.



lengths and widths

Full roll length approximately 100 metres but any length can be cut to order.
Our standard stock width is 1 metre but other widths are often available or may be woven to special order.

please note: 1 micron = 1,1000 part of 1 millimetre



physical properties	polyamide (6.6 nylon)	polyester	polyethylene	polypropylene	polyvinylchloride (PVC)
max working temp. °C	100	150	60	70	60
short term working temp. °C	150	180	90	100	70
melting point °C	255	256	120	165	150
softening point °C	235-240	230	110	150	70
specific gravity	1.14	1.38	0.95	0.92	1.38
tensile strength N/mm ²	70-100	95-130	50-60	22-55	20-40
elongation to break %	15-25	10-20	15-30	15-30	14-60
moisture absorption % at 20°C	3.5-4.5	0.4	0	0	0-0.2
U.V. resistance	Fair	Good	Poor	Low	V.Good
abrasion resistance	V.Good	V.Good	Poor	Average	Poor
chemical properties at 20°C*					
acetic acid, conc.	–	✓	✓	✓	✓
sulphuric acid 20%	–	✓	✓	✓	?
nitric acid 10%	–	?	✓	✓	✓
hydrochloric 25%	–	?	✓	✓	?
sat. sodium carbonate	✓	✓	✓	✓	?
chlorine Conc.	–	✓	✓	?	✓
caustic soda 25%	?	–	✓	✓	?
ammonia, conc.	✓	–	✓	✓	?
potassium permanganate	–	✓	✓	?	?
formaldehyde, conc.	✓	✓	✓	✓	?
chlorinated hydrocarbons	✓	✓	?	?	?
benzene	✓	✓	?	?	–
phenol	–	?	?	?	–
ketones, acetone	✓	✓	?	?	?

✓ recommended

? conditional

– unsatisfactory

* resistance is generally lower at higher temperature.



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