

TENAX



FILTRATION

ENG



# Filtration

**TENAX is actively supplying components into liquid, air, and dust filtration segments.**

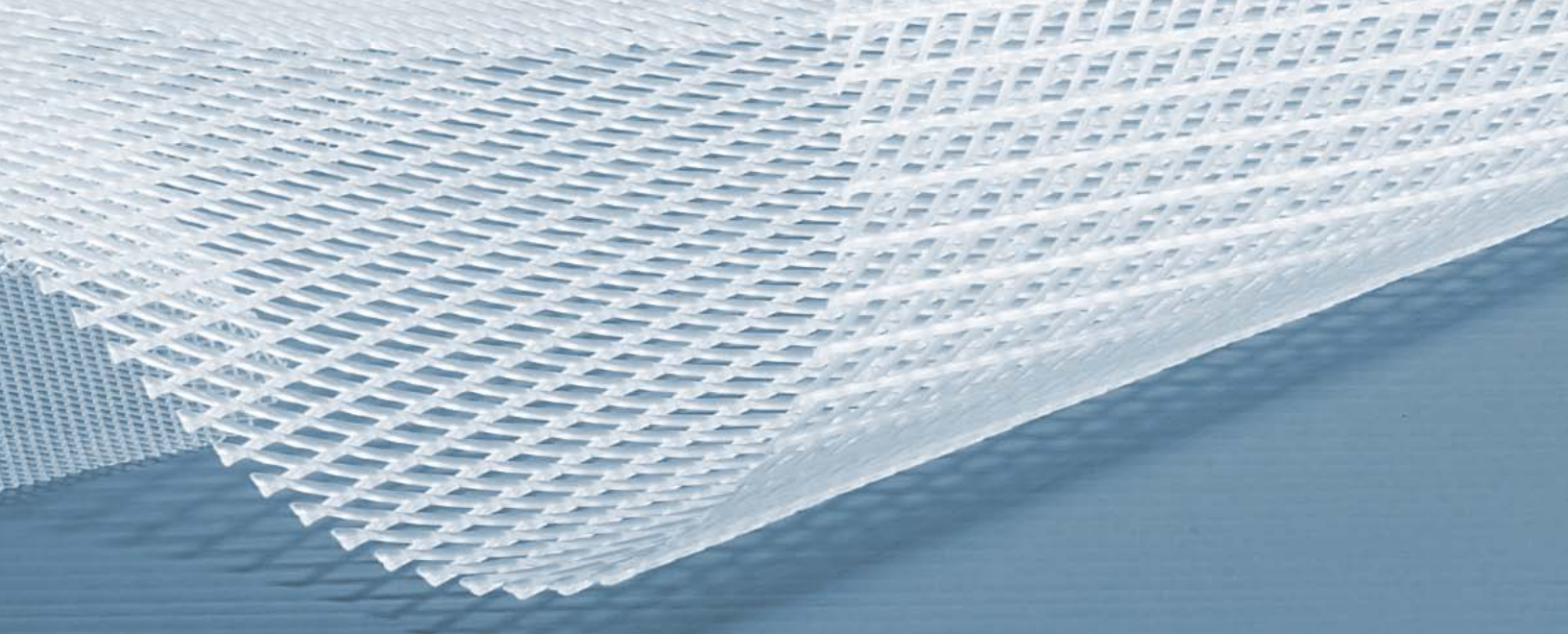
Through thermoplastic extrusion technology, TENAX designs and produces rigid mesh tubes, single or dual flat extruded nets, and elastic sleeves. These products are used in different fields which include industrial filter cartridges, air cabin, reverse osmosis (RO) filters, and pleated membranes.

Plastic components have become more and more important in the filtration market. In comparison to sheet metal, these items display many advantages. They have low weight, can be easily recycled and incinerated, are chemically inert, and suitable for ultra-sound (US) as well as low temperature welding.

The company aims at innovation to satisfy customers' requirements and find new technological solutions for filters. Aside from our available product range, we constantly develop new products.

## Applications

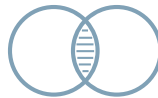
- Air cabin filters
- Air filtration cartridges
- Liquid filtration cartridges
- Wound filter cartridges
- Water and fluids filtration



## Advantages



*Chemical  
inert*



*Ultra-sound /  
thermic welding*



*Incinerable  
netting*

### **PLEATING SUPPORT**

Nets designed for lamination, coating, and mechanical pleating for filtration components. Particularly used in cabin filter elements.

### **RIGID MESH TUBES**

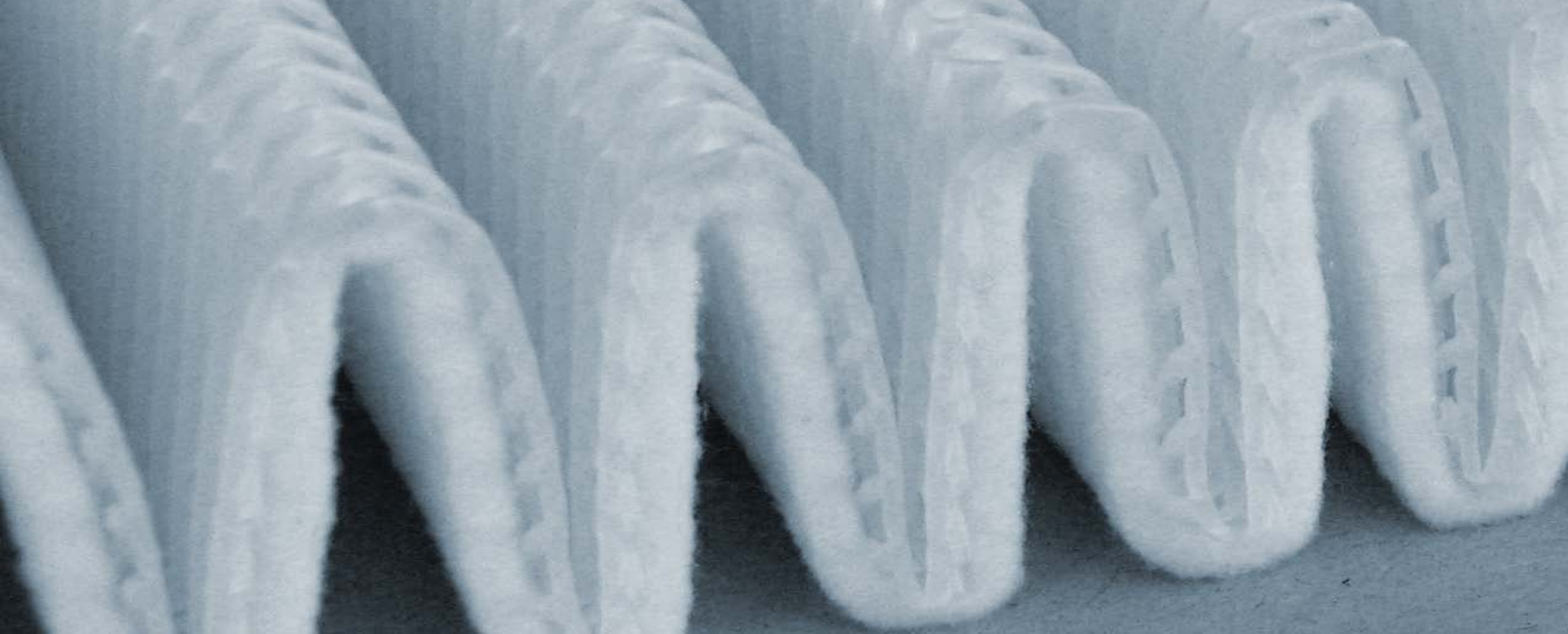
Used as inner support (core) or outer protection (cage) of cartridges for air, water and industrial liquid filtration.

### **DRAINING SPACERS FOR MEMBRANES**

A range of products used in the filtration cartridges for osmosis reverse and in the membrane modules.

### **TUBULAR AND FLAT NETTINGS**

Designed for outer protection of large filtration cartridges. They can hold a flame-retardant additive in the polymer mixture and successfully replace sheet metal.



## Pleating supports

Single or dual flat extruded nettings with rhomboidal mesh used as support and pleating of media filters. The use of the net as a spacer among the pleats of a filter media helps in keeping the shape and prevents them any contact, by keeping space and avoiding then a reduction of the filter performances.

TENAX range of products includes articles made of advanced polymers able to satisfy high mechanical and thermic requirements. The PA6 (Nylon) spacers can be placed in contact with oils and corrosive substances. They are available up to 1000 mm width.

### Advantages



*Chemical  
inert*



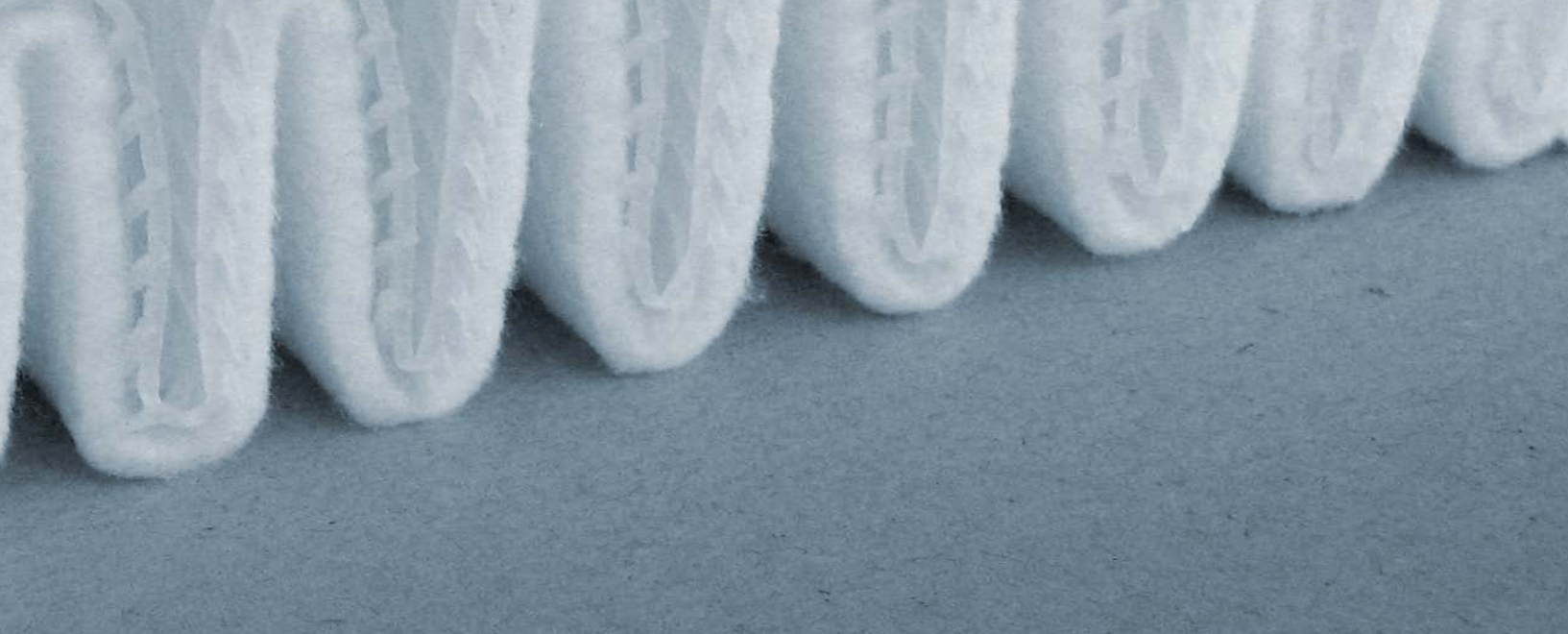
*Ultra-sound/  
thermic welding*



*Incinerable  
netting*



*Mechanical  
strength*

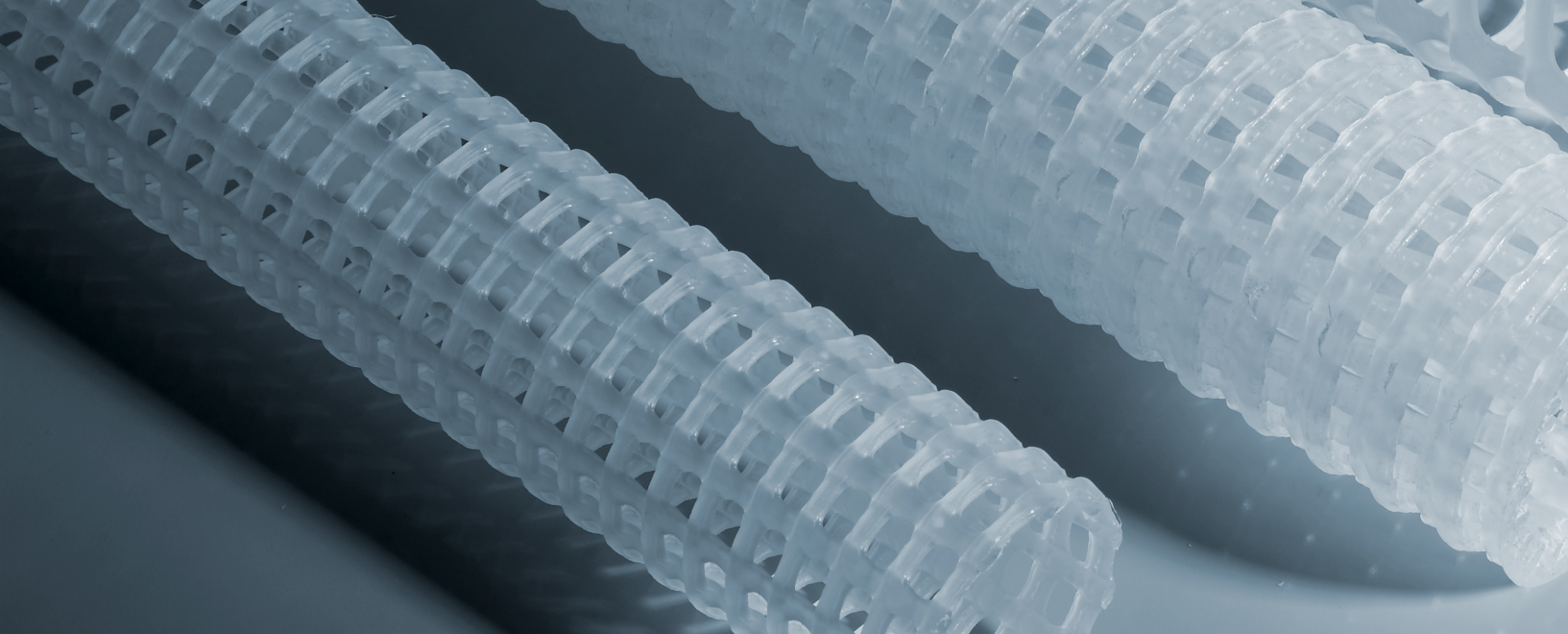


## Physical / mechanical features

Max width	2.000 mm
Min thickness	0,40 mm
Max thickness	3,80 mm
Min pitch MD	2,30 mm (+/- 1,0 mm)
Min pitch TD	1,40 mm
Min working temp.	- 40°C
Max working temp.	+ 120°C
Color	Colorless

## Articles

ARTICLE	POLYMER	THICKNESS [ mm ]	WEIGHT [ g/m <sup>2</sup> ]	PITCH [ mm ]		OPENING [ mm ]	
				MD	TD	MD	TD
CN 56	LLDPE + HDPE	0,50	110	2,60	1,90	2,20	1,50
CN 29	hPP	0,60	110	3,70	2,00	3,00	1,50
OS 050	cPP	0,65	110	2,60	1,90	2,20	1,50
OS 1 PA	PA6	0,65	140	3,30	1,90	2,40	1,45
CN 20	hPP	0,70	207	2,30	1,40	1,00	0,50
OS 101	cPP	0,72	80	4,00	4,00	3,50	3,50
OS 107	cPP	1,10	190	3,20	3,10	2,80	2,70
CN 25	hPP	1,10	164	3,60	3,40	2,80	2,60
OS 104	cPP	1,20	150	5,20	5,20	4,00	4,00
CN 11	hPP	1,40	400	3,50	2,50	2,50	1,50
CN 17	HDPE	1,40	420	4,50	2,50	3,00	1,70
OS 103	cPP	1,80	340	5,20	5,20	4,00	4,00



## Rigid mesh tubes

The rigid mesh tubes manufactured by TENAX are usually used both as inner support (core) and as outer protection (cage) of cartridges for air, water and/or industrial fluids filtration.

The extrusion technology allows to create tubular profiles suitable and adaptable to any customer's need.

The main features which can be controlled through this process are: inner and outer diameters, the length of pieces, the opening dimensions and the opening ratio.

### Advantages



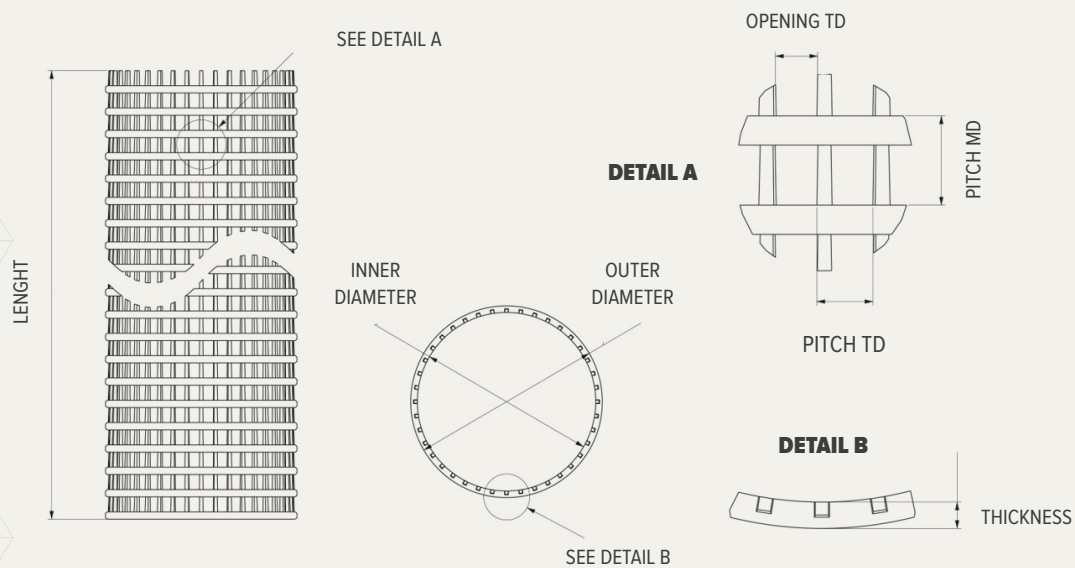
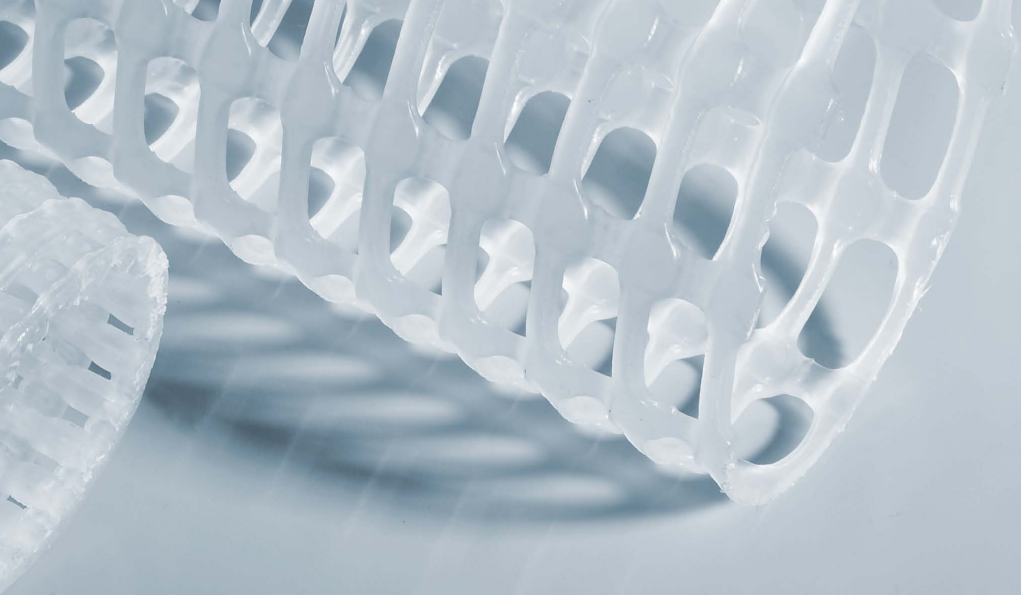
*Chemical  
inert*



*Ultra-sound/  
thermic welding*



*Incinerable  
netting*



## Physical / mechanical features

Min length	200 mm
Max length	3000 mm
Min thickness	1,5 mm
Max thickness	7,5 mm
Min pitch MD	2,5 mm
Min inner diam.	27 mm
Max outer diam.	225 mm
Mesh	Square
Surface	Smooth or rough
Min working temp.	- 40 °C
Max working temp.	+ 120 °C
Color	Colorless

\* articles are displayed in order of increasing internal diameter

ARTICLE	MIN LENGHT [ mm ]	POLYMER	INNER DIAM. [ mm ]		OUTER DIAM. [ mm ]		THICKNESS [ mm ]	PITCH [ mm ]		MESH [ mm ]		WEIGHT [ g/m ]	OPEN SURFACE [ % ]	MOQ [ m ]
			MD	TD	MD	TD		mm	MD	TD	MD			
FT/P 111	200	hPP	27,0	+0,25 -0,25	32,5	+ 0,5 - 0	2,75	6,0	8,0	4,0	5,0	105	42%	5824
FT/P 01	200	hPP	28,0	+ 0,5 - 0	34,0	+ 0,5 - 0,5	3,00	6,0	8,2	3,5	5,5	110	39%	5472
FT/P 109	200	hPP	28,5	+ 0,5 - 0	35,0	+ 0,5 - 0	3,25	7,3	8,3	3,5	5,3	150	31%	5460
FT/P 18	200	hPP	28,5	+ 0,5 - 0	34,0	+ 0,5 - 0	2,70	6,0	8,0	3,5	5,5	110	40%	5472
FT/P 74	200	hPP	28,5	+ 0,5 - 0,5	38,0	+ 0 - 1	4,75	10,0	8,7	3,6	4,7	220	19%	2880
FT/P 02	200	hPP	29,0	+ 0,5 - 0	35,0	+ 0,5 - 0,5	3,00	6,0	8,3	3,5	5,5	110	39%	5472
FT/P 27	200	hPP	29,0	+ 0,5 - 0	36,0	+ 0,5 - 0	3,50	5,0	8,3	2,0	5,0	165	24%	3744
FT/P 26	200	hPP	31,0	+ 0,5 - 0,5	37,0	+ 0,5 - 0,5	3,00	6,0	9,0	3,3	6,0	120	37%	4752
FT/H 11	208	HDPE	31,5	+ 0,5 - 0,5	35,0	+ 0,5 - 0,5	1,75	15,0	13,0	12,5	10,8	50	69%	7200
FT/P 56	200	PPh	32,0	+ 0,5 - 0	38,0	+ 0,5 - 0	3,00	6,0	8,5	3,0	5,5	120	32%	4656
FT/H 03	200	HDPE	34,0	+ 0,5 - 0	38,0	+ 0,5 - 0	2,00	4,2	3,0	2,0	2,0	100	32%	4320
FT/H 79	200	HDPE	34,0	+ 0,5 - 0	38,0	+ 0 - 0,5	2,00	4,5	2,8	2,5	1,3	100	26%	4320
FT/P 34	200	hPP	34,0	+ 0,5 - 0	44,5	+ 0,5 - 0	5,25	9,0	5,8	3,2	2,0	320	12%	2880
FT/P 106	200	hPP	36,0	+ 0,5 - 0,5	41,0	+ 0,5 - 0,5	2,50	10,2	10,0	8,0	7,7	80	60%	3289
FT/P 76	200	hPP	38,0	+ 0 - 0,5	41,0	+ 0,5 - 0	1,50	5,4	6,2	3,9	4,4	60	51%	5400
FT/H 73	200	HDPE	38,5	+ 0,5 - 0,5	44,5	+ 0,5 - 0,5	3,00	22,0	16,3	16,5	13,8	75	63%	5800
FT/P 123	200	hPP	39,0	+ 0,5 - 0	42,0	+ 0,5 - 0	1,50	4,3	3,2	2,8	2,0	70	41%	2867
FT/P 60	200	hPP	39,0	+ 0,5 - 0	49,0	+ 0,5 - 0	5,00	8,0	6,5	3,0	2,5	330	14%	1450
FT/H 63	200	HDPE	40,0	+ 0,5 - 0	45,5	+ 0,5 - 0	2,75	8,0	5,0	4,5	2,5	170	28%	2682
FT/P 33	200	hPP	44,0	+ 0 - 0,5	49,0	+ 0 - 0,5	2,50	11,0	12,0	7,0	8,0	165	42%	4032
FT/H 44	200	HDPE	45,0	+ 0,5 - 0,5	49,0	+ 0,5 - 0,5	2,00	3,7	3,7	2,0	2,2	130	32%	2870
FT/H 68	200	HDPE	45,0	+ 0,5 - 0,5	51,0	+ 0,5 - 0,5	3,00	9,0	12,5	6,3	8,3	170	46%	3740
FT/P 12	200	hPP	45,0	+ 0,5 - 0,5	51,0	+ 0,5 - 0,5	3,00	9,2	12,5	6,0	8,0	165	42%	3888
FT/H 51	225	HDPE	50,0	+ 0,5 - 0,5	57,0	+ 0,5 - 0,5	3,50	41,0	28,0	36,5	23,0	100	73%	7800
FT/H 52	200	HDPE	50,0	+ 0,5 - 0,5	57,0	+ 0,5 - 0,5	3,50	41,0	28,0	35,0	23,0	130	70%	5760
FT/P 20	200	hPP	51,0	+ 0 - 0,5	56,0	+ 0 - 0,5	2,50	6,3	5,2	4,0	3,0	160	37%	4032
FT/P 82	300	hPP	52,5	+ 0,5 - 0,5	62,0	+ 0,5 - 0,5	4,75	12,5	7,5	6,0	2,9	400	18%	2903
FT/H 50	200	HDPE	53,0	+ 0 - 0,5	58,0	+ 0 - 0,5	2,50	4,2	3,8	2,4	2,0	200	30%	3744
FT/P 13	200	hPP	54,0	+ 1 - 1	57,0	+ 1 - 1	1,50	8,8	4,4	6,0	2,5	130	39%	4896
FT/P 23	200	hPP	54,0	+ 0,5 - 0,5	59,0	+ 0,5 - 0,5	2,50	5,5	4,5	2,5	3,0	170	30%	3740
FT/P 43	200	hPP	54,0	+ 0,5 - 0	60,0	+ 0,5 - 0	3,00	3,0	6,5	1,5	3,0	220	23%	2304
FT/P 61	200	hPP	54,0	+ 0,5 - 0,5	62,0	+ 0,5 - 0,5	4,00	6,5	8,5	3,7	6,0	235	40%	2300
FT/H 67	480	HDPE	54,5	+ 0,5 - 0,5	66,0	+ 0,5 - 0,5	5,75	11,5	7,8	5,0	2,8	470	16%	4173
FT/P 66	360	hPP	55,0	+ 0,5 - 0,5	66,0	+ 0,5 - 0,5	5,50	10,5	8,0	4,0	3,4	580	16%	3200
FT/H 69	200	HDPE	56,0	+ 0,5 - 0,5	66,0	+ 0,5 - 0,5	5,00	16,5	7,9	8,2	3,5	470	22%	1365
FT/P 80	200	PPh	56,0	+ 0,5 - 0,5	66,0	+ 0,5 - 0,5	5,00	16,5	8,0	8,2	3,5	460	22%	1300
FT/P 62	360	hPP	57,0	+ 0,5 - 0,5	67,0	+ 0,5 - 0,5	5,00	9,0	8,0	4,0	3,0	540	17%	3348
FT/P 70	200	hPP	57,0	+ 1 - 0	61,0	+ 1 - 0	2,00	4,0	4,6	2,6	3,0	170	42%	3471



ARTICLE	MIN LENGTH [mm]	POLYMER	INNER DIAM. [mm]		OUTER DIAM. [mm]		THICKNESS [mm]	PITCH [mm]		MESH [mm]		WEIGHT [g/m]	OPEN SURFACE [%]	MOQ [m]
			MD	TD	MD	TD		mm	MD	TD	MD			
FT/P 93	200	hPP	57,0	+1 -1	60,0	+1 -1	1,50	8,0	4,6	5,2	2,8	140	40%	3720
FT/P 86	200	hPP	57,5	+0 -0,5	62,5	+0 -0,5	2,50	8,5	9,5	5,5	7,0	140	48%	3840
FT/P 96	200	hPP	57,5	+0,5 -0,5	62,2	+0,5 -0,5	2,35	5,6	5,9	3,4	3,5	170	36%	4020
FT/H 98	200	HDPE	59,3	+0 -0,5	64,0	+0 -0,5	2,35	8,5	9,5	5,0	6,2	140	38%	3800
FT/P 83	200	hPP	59,3	+0 -0,5	64,0	+0 -0,5	2,35	8,5	9,5	5,0	6,2	140	38%	3696
FT/P 09	200	hPP	59,5	+0,5 -0	62,5	+0,5 -0	1,50	16,0	9,5	12,0	6,2	130	49%	4914
FT/P 54	200	hPP	60,0	+0,5 -0,5	65,5	+0,5 -0,5	2,75	2,5	6,0	1,0	3,0	280	20%	2276
FT/P 99	200	hPP	60,0	+0 -0,5	64,0	+0 -0,5	2,00	13,0	10,9	10,7	9,0	100	68%	3850
FT/P 91	200	hPP	60,5	+0,5 -0,5	64,5	+0 -0,5	2,00	3,5	6,1	2,2	3,3	160	34%	3764
FT/H 16	200	HDPE	61,0	+1 -1	67,0	+1 -1	3,00	35,0	32,0	32,0	27,0	150	77%	4608
FT/H 64	450	HDPE	61,0	+0,5 -0,5	71,0	+0,5 -0,5	5,00	10,8	9,8	6,4	5,8	410	35%	4305
FT/P 04	200	hPP	61,0	+0,5 -0	64,0	+0,5 -0	1,50	8,5	5,5	5,0	3,5	140	37%	4320
FT/P 46	200	hPP	61,5	+0,5 -0,5	65,5	+0 -0,5	2,00	3,1	6,2	1,9	3,4	160	34%	3980
FT/H 115	200	HDPE	62	+0,5 -0,5	68,5	+0,5 -0,5	3,25	12,2	11,5	8,5	8,0	240	48%	3687
FT/P 29	200	hPP	63,0	+0,25 -0,25	67,0	+0,5 -0	2,00	7,0	6,3	4,2	4,0	165	38%	3744
FT/P 32	200	hPP	63,0	+0,5 -0	66,0	+0,5 -0	1,50	8,5	5,0	5,8	3,5	140	47%	4600
FT/P 38	200	hPP	63,0	+0 -0,5	66,5	+0 -0,5	1,75	3,3	6,3	2,0	3,0	160	29%	3900
FT/H 15	208	HDPE	65,0	+1 -1	71,0	+1 -1	3,00	35,0	35,0	32,0	30,0	105	78%	7200
FT/P 72	420	hPP	65,0	+0,5 -0,5	74,0	+0,5 -0,5	4,50	10,3	13,5	7,0	10,0	260	50%	4032
FT/P 81	200	hPP	65,0	+0,25 -0,25	69,0	+0,25 -0,25	2,00	6,9	5,8	4,3	3,4	170	37%	3744
FT/P 14	200	hPP	67,0	+1 -1	70,0	+1 -1	1,50	8,5	5,4	6,0	3,5	140	46%	4320
FT/H 24	200	HDPE	68,0	+0,5 -0,5	73,0	+0,5 -0,5	2,50	9,0	6,8	6,3	4,2	230	43%	3456
FT/P 55	200	hPP	68,0	+0,5 -0,5	73,5	+0,5 -0,5	2,75	10,0	22,0	7,0	15,0	215	48%	2700
FT/H 118	450	HDPE	70,0	+0,5 -0,5	80,0	+0 -0,5	5,00	13,0	11,2	7,5	7,5	500	39%	4200
FT/H 114	450	HDPE	72,0	+0,5 -0,5	80,0	+0 -0,5	4,00	13,0	11,4	8,0	8,0	400	43%	4200
FT/P 117	200	hPP	73,0	+0,5 -0,5	80,0	+0,5 -0,5	3,50	10,5	13,3	7,8	10,3	240	58%	3840
FT/P 78	480	hPP	80,5	+0,5 -0,5	90,0	+0,5 -0,5	4,75	9,5	12,2	5,8	9,4	380	47%	4640
FT/H 39	480	HDPE	82,0	+0,25 -0,25	90,0	+0,25 -0,25	4,00	8,0	12,0	5,5	9,5	260	54%	4608
FT/H 48	495	HDPE	83,0	+0,5 -0	88,0	+0 -0,5	2,50	5,0	3,8	3,0	1,8	280	28%	4750
FT/P 75	360	hPP	83,0	+0,5 -0,5	93,0	+0,5 -0,5	5,00	10,0	7,7	6,4	5,0	415	42%	3400
FT/P 65	390	hPP	85,5	+0 -0,5	97,5	+0 -0,5	6,00	12,0	12,0	7,0	7,0	540	34%	3500
FT/P 71	345	hPP	85,5	+0,5 -0,5	97,5	+0,5 -0,5	6,00	10,3	11,5	5,0	7,5	600	32%	3160
FT/H 19	450	HDPE	86,0	+0,5 -0,5	94,0	+0,5 -0,5	4,00	10,0	7,0	7,0	5,0	300	50%	4320
FT/P 125	450	hPP	86,0	+0,5 -0,5	94,0	+0,5 -0,5	4,00	10,0	7,0	7,0	5,0	300	50%	4324
FT/P 84	480	hPP	86,0	+0,5 -0,5	94,0	+0,5 -0,5	4,00	9,5	12,8	5,8	9,8	380	47%	4600
FT/P 136	450	hPP	88,0	+0,5 -0,5	94,5	+0,5 -0,5	3,25	11,0	7,0	7,0	5,0	300	45%	2126
FT/H 05	450	HDPE	90,0	+1 -1	97,0	+1 -1	3,50	10,0	7,5	7,5	5,0	290	50%	4320
FT/H 45	450	HDPE	90,0	+0,5 -0,5	97,0	+0,5 -0,5	3,50	12,0	13,5	9,0	10,0	300	56%	4320

\* articles are displayed in order of increasing internal diameter

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ARTICLE	MIN LENGHT [ mm ]	POLYMER	INNER DIAM. [ mm ]		OUTER DIAM. [ mm ]		THICKNESS [ mm ]	PITCH [ mm ]		MESH [ mm ]		WEIGHT [ g/m ]	OPEN SURFACE [ % ]	MOQ [ m ]
			MD	TD	MD	TD		mm	MD	TD	MD			
FT/P 95	360	PP COP	90,0	+1,0 -0,0	95,0	+1,0 -0,0	2,50	6,0	4,2	3,5	2,6	300	36%	3375
FT/P 124	450	PP COP	90,5	+0,5 -0,5	96,5	+0,5 -0,5	3,00	8,0	8,4	5,8	6,0	270	52%	4380
FT/H 103	495	HDPE	91,0	+0 -0,5	95,5	+0,5 -0	2,25	4,5	4,2	3,0	2,4	270	38%	4780
FT/P 31	450	hPP	91,0	+0,25 -0,25	97,5	+0,25 -0,25	3,25	11,0	13,5	8,0	11,0	250	59%	4320
FT/P 58	480	hPP	91,0	+0,5 -0,5	97,5	+0,5 -0,5	3,25	11,0	13,5	7,5	11,0	260	56%	4600
FT/H 104	600	HDPE	94,5	+0,5 -0,5	100,5	+0,5 -0,5	3,00	9,7	7,6	7,2	6,4	215	63%	5830
FT/H 07	250	HDPE	95,0	+0,5 -0,5	102,0	+0,5 -0,5	3,50	10,0	8,0	7,5	5,5	320	52%	2304
FT/P 119	250	hPP	95,0	+0,5 -0,5	110,0	+0,5 -0,5	7,50	16,5	20,0	9,0	12,5	870	34%	1690
FT/P 06	330	hPP	96,0	+0 -1	100,0	+0 -1	2,00	8,0	5,0	5,0	3,0	265	38%	3000
FT/P 122	570	hPP	97,0	+0,5 -0,5	103,0	+0,5 -0,5	3,00	10,0	7,8	6,3	6,0	300	48%	5460
FT/P 126	300	hPP	97,0	+0,5 -0,5	108,0	+0,5 -0,5	5,50	15,0	13,5	10,0	9,0	600	44%	2304
FT/P 17	390	hPP	97,0	+0 -0,5	101,3	+0 -0,5	2,15	8,1	5,2	5,0	3,0	265	36%	2592
FT/P 116	360	hPP	102,5	+1 -1	111,0	+1 -1	4,25	17,0	14,0	14,0	11,0	390	65%	3388
FT/H 90	465	HDPE	105,0	+0,7 -0	109,0	+0,7 -0	2,00	9,0	5,5	6,0	3,5	265	42%	4400
FT/P 36	465	hPP	105,0	+0,7 -0	109,0	+0,7 -0	2,00	9,0	5,5	6,0	3,5	265	42%	2304
FT/P 41	390	hPP	107,0	+0 -0,5	115,5	+0 -0,5	4,25	14,0	14,5	10,0	10,5	480	52%	3744
FT/H 108	570	HDPE	108,0	+1 -1	113,0	+1 -1	2,50	10,0	8,5	7,5	7,5	230	66%	6092
FT/H 49	405	HDPE	108,0	+0,5 -0	114,0	+0,5 -0,5	3,00	4,5	4,0	3,0	2,0	360	33%	3888
FT/P 113	360	hPP	112,0	+0,5 -0	118,5	+0,5 -0	3,50	9,2	7,5	6,2	5,1	370	46%	3384
FT/P 88	390	hPP	112,0	+0,5 -0	115,5	+0,5 -0,5	1,75	6,7	5,0	4,1	3,0	350	37%	3653
FT/H 101	390	HDPE	114,0	+0 -0,5	119,5	+0 -0,5	2,75	9,2	7,6	6,5	5,3	365	49%	3760
FT/H 85	324	HDPE	118,5	+0,5 -0,5	125,0	+0,5 -0,5	3,25	11,5	13,5	8,0	9,5	360	49%	2880
FT/P 59	330	hPP	118,5	+0,5 -0,5	125,0	+0,5 -0,5	3,25	11,5	13,5	8,0	9,5	360	49%	2880
FT/H 100	360	HDPE	124,0	+0,5 -0,5	129,5	+0,5 -0,5	2,75	9,3	8,3	6,8	6,1	360	54%	3456
FT/H 08	250	HDPE	125,0	+1 -1	132,0	+1 -1	3,50	10,0	10,0	8,0	8,0	400	64%	1872
FT/H 57	375	HDPE	132,0	+1 -1	142,0	+1 -1	5,00	20,0	21,5	14,4	16,0	600	54%	3528
FT/H 53	390	HDPE	136,5	+0 -1	141,5	+0 -1	2,50	5,0	4,0	3,0	2,0	430	30%	3744
FT/P 30	390	hPP	136,5	+0,25 -0,25	142,5	+0,5 -0	3,00	10,0	11,0	7,0	8,0	400	51%	3744
FT/H 37	390	HDPE	138,0	+0,5 -0,5	145,0	+0,5 -0,5	3,50	10,0	7,5	7,0	5,0	430	47%	3744
FT/H 92	300	HDPE	138,0	+0,5 -0,5	145,0	+0,5 -0,5	3,50	10,8	7,4	7,3	5,0	600	46%	2898
FT/P 105	360	cPP	146,0	+0,5 -0,5	151,0	+0,5 -0,5	2,50	6,0	4,7	3,3	3,2	430	37%	3200
FT/P 94	420	hPP	147,0	+0 -1	152,0	+0 -1	2,50	5,5	4,5	3,5	2,7	425	38%	3455
FT/H 10	390	HDPE	153,0	+1 -1	160,0	+1 -1	3,50	10,0	8,0	7,5	6,0	500	56%	3744
FT/P 89	330	hPP	155,0	+0,5 -0,5	164,0	+0,5 -0,5	4,50	8,8	8,3	5,8	6,0	600	48%	3160
FT/H 77	250	HDPE	215,0	+0,5 -0,5	224,0	+0,5 -0,5	4,50	8,5	8,5	5,7	6,0	945	47%	2302
FT/P 87	250	hPP	220,0	+0,5 -0,5	229,0	+0,5 -0,5	4,50	8,0	7,0	3,5	4,0	1250	25%	2153



# Spacers

For reverse osmosis and ultra-filtration TENAX has its range of flow spacer for membranes. These are dual-flat rhomboidal nets, designed on demand, which show a minimum thickness of 0,65 mm (0,0255") and mesh of 2.60 x 1.90 mm (0.102" x 0.075"). TENAX spacers, named as OS, are certified for direct food contact according to EU Reg. 10/2011 and American FDA.

## Advantages



*Chemical inert*



*Ultra-sound / thermic welding*



*Incinerable netting*

## Physical / mechanical features

Max width	1.400 mm
Min thickness	0,40 mm
Max thickness	2,00 mm
Min pitch MD	2,60 mm
Min pitch TD	1,90 mm
Min working temp.	- 40°C
Max working temp.	+ 120°C
Color	Colorless

## Articles

ARTICLE	POLYMER	THICKNESS	WEIGHT [g/m <sup>2</sup> ]	PITCH [ mm ]		OPENING [ mm ]	
				MD	TD	MD	TD
OS 050	cPP	0,65	110,00	2,60	1,90	2,20	1,50
OS 101	cPP	0,72	80,00	4,00	4,00	3,50	3,50
OS 107	cPP	1,10	190,00	3,20	3,10	2,80	2,70
OS 100	cPP	1,20	180,00	4,00	4,00	3,00	3,00
OS 104	cPP	1,20	150,00	5,20	5,20	4,00	4,00
OS 103	cPP	1,80	340,00	5,20	5,20	4,00	4,00
OS 102	cPP	2,00	415,00	5,20	5,20	3,50	3,50

# Filter outer protection

TENAX offers many solutions to control and protect the external side of filter media. The replacement of sheet metal with a plastic sleeve or a flat net allows the incineration of cartridges after their use.

This saves time and money for disassemble and separate the filter components.

TENAX products can be used in any industrial process, as they are completely suitable for ultrasounds or low temperature welding.

## Advantages



*Chemical inert*



*Ultra-sound / thermic welding*



*Incinerable netting*

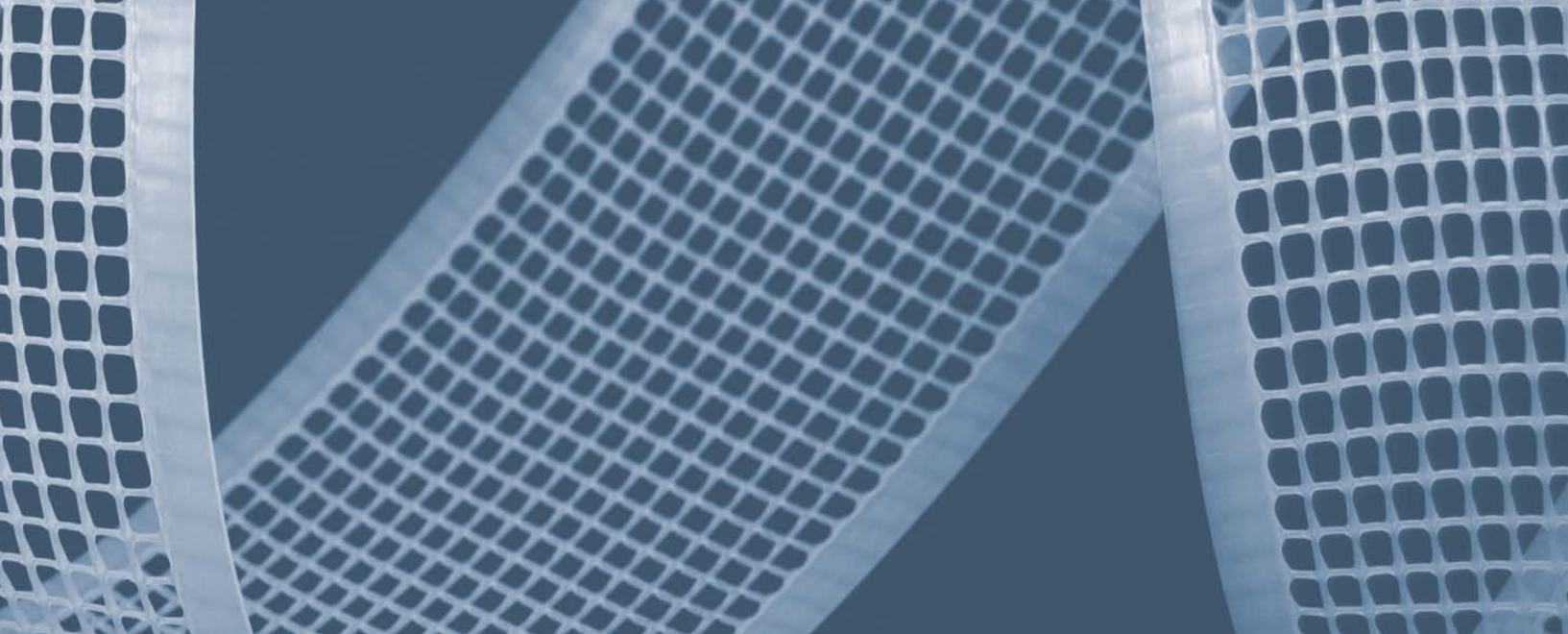


*Mechanical strength*

## Physical / mechanical features

Raw Materials	PP, HDPE, LDPE
Max diam. (sleeves)	550 mm
Max diam. (mesh tubes)	230 mm
Mesh	Square or rhomboidal

Surface	Smooth or rough
Min working temp.	- 40°C
Max working temp.	+ 120°C
Color	Customized
Additives	AUV, flame retardant



## Elastic sleeves

ARTICLE	POLYMER	WEIGHT [g/m]	SEMICIRCLE [mm]	DIAMETER [mm]	COLOR
ES-LD 200	LDPE	170	230	200	Colorless
ES-LD 230	LDPE	190	280	230	Colorless
ES-LD 270	LDPE	250	330	270	Silver
ES-LD 275	LDPE	230	330	275	Colorless
ES-LD 306	LDPE	270	370	306	Colorless
ES-LD 355	LDPE	300	435	355	Colorless

## Rigid mesh tubes

ARTICLE	POLYMER	WEIGHT [g/m]	INNER DIAMETER [mm]	THICKNESS [mm]	COLOR
FT/H 52	HDPE	130	50,00	3,50	Colorless
FT/P 75	hPP	415	83,00	5,00	Colorless
FT/H 48	HDPE	280	83,00	2,50	Colorless
FT/H 45	HDPE	300	90,00	3,50	Colorless
FT/H 49	HDPE	360	106,00	3,00	Colorless
FT/H 85	HDPE	360	118,00	3,25	Colorless
FT/H 53	HDPE	430	136,00	2,50	Black
FT/P 105	cPP	430	146,00	2,50	Colorless
FT/P 89	hPP	600	155,00	4,50	Colorless
FT/H 77	HDPE	945	215,00	4,50	Colorless

## Flat square mesh nets

ARTICLE	POLYMER	THICKNESS [mm]	WEIGHT [g/m <sup>2</sup> ]	OPENING [mm]		COLOR
				MD	TD	
CN 35	hPP	1,00	235,00	4,70	4,70	Colorless
CN 41	HDPE	1,10	270,00	4,00	4,00	White
CN 42	HDPE	1,50	270,00	9,00	9,00	White

## Flat nets for spiral welding

ARTICLE	POLYMER	THICKNESS [mm]	WIDTH [mm]	WEIGHT [g/m <sup>2</sup> ]	OPENING [mm]		COLOR
					MD	TD	
CN 21	HDPE	1,00	150	400,00	5,00	4,00	Colorless
CN 22	HDPE	1,10	150	750,00	5,20	4,60	Colorless
CN 23	HDPE	1,50	100	400,00	4,50	5,00	Colorless

\* all products can be produced with a flame retardant additive

\* other colors available on request

# Raw materials

TENAX nets for industry are manufactured thanks to the extrusion of polyolefins and polyamides, which allow for a very good resistance against almost all chemicals and even micro-organisms such as spores, molds, and bacteria.

These raw materials vary among them in some peculiar features.

## hPP - Homopolymer polypropylene

- Specific weight: 0.9-0.915 g/cm<sup>3</sup> (56.19-57.12 lb/ft<sup>3</sup>)
- Melting temperature: 162-168°C (323.6-334.4°F)
- Tensile strength: 34-37 MPa
- Young's modulus: 1200-2000 Pa
- Yield elongation: 5-10%
- Break elongation: 500-700%
- Working temperature: +0°C – +90°C (32°F – 194°F)
- Max working temperature (short period): +100°C (212°F)

Light material, resistant to chemical substances (as salts, acids and strong alkalis) and with a high mechanical strength. It is used for bi-oriented (stretched) products. Suitable for direct food contact.

## LDPE - Low-density polyethylene

- Specific weight: 0.915-0.920 g/cm<sup>3</sup> (57.12-57.43 lb/ft<sup>3</sup>)
- Melting temperature: 105-118°C (221-244.4°F)
- Tensile strength: 10-25 MPa
- Young's modulus: 150-300 Pa
- Yield elongation: -
- Break elongation: 550-600%
- Working temperature: -70°C - +40°C (-94°F – 104°F)
- Max working temperature (short period): 50°C (122°F)

Very soft material. It is mostly used for elastic sleeves for protecting goods. Can stand really low temperature.

## cPP - Copolymer polypropylene

- Specific weight: 0.895-0.9 g/cm<sup>3</sup> (54.62-56.19 lb/ft<sup>3</sup>)
- Melting temperature: 135-168°C (275-334.4°F)
- Tensile strength: 25-30 MPa
- Young's modulus: 1000 Pa
- Yield elongation: 5-10%
- Break elongation: >500%
- Working temperature: -20°C – 70°C (68°F – 158°F)
- Max working temperature (short period): +80°C (176°F)

Slightly softer and more resistant to high temperature than the homopolymer but with similar mechanical features. Suitable for direct food contact.

## HDPE - High-density polyethylene

- Specific weight: 0.94-0.96 g/cm<sup>3</sup>  
(58.68-59.93 lb/ft<sup>3</sup>)
- Melting temperature: 126-135°C  
(258.8-275°F)
- Tensile strength: 25-35 MPa
- Young's modulus: 800-1400 Pa
- Yield elongation: 10-12%
- Break elongation: >800%
- Working temperature: -40°C - +70°C  
(-40°F - 158°F)
- Max working temperature (short period): 75°C  
(167°F)

Outperforming chemical and good mechanical resistance. Within the polyethylene family it is the one which can stand at best high and low temperatures. It's used for both extruded and stretched grids.

## LLDPE – Linear low-density polyethylene

- Specific weight: 0.92 g/cm<sup>3</sup>  
(57.43 lb/ft<sup>3</sup>)
- Melting temperature: 114-125°C  
(237.2-257°F)
- Tensile strength: 20-30 MPa
- Young's modulus: 150-400 Pa
- Yield elongation: -
- Break elongation: 600-800%
- Working temperature: -70 +50°C  
(-94°F - 122°F)
- Max working temperature (short period): +60°C (140°F)

## EVA – Ethylene-vinyl acetate

- Specific weight: 0.93 g/cm<sup>3</sup>  
(58.06 lb/ft<sup>3</sup>)
- Melting temperature: 96°C  
(204.8°F)
- Tensile strength: 25-30 MPa
- Break elongation: 550-900%

Similar to gum.

It's very flexible and extremely elastic.

It shows outperforming insulating qualities and great resistance to low temperature.

It's hypoallergenic and not toxic.

## PA6 (Nylon) - Polyamide 6

- Specific weight: 1.12-1.14 g/cm<sup>3</sup>  
(69.91-71.16 lb/ft<sup>3</sup>)
- Melting temperature: 220-225°C  
(428-437°F)
- Tensile strength: 80 MPa (dry) – 55 MPa (wet)
- Break elongation: 20-40% (dry) – 100% (wet)
- Working temperature: -40°C – 105°C  
(-40 – 221°F)
- Max working temperature (short period): 170°C (338°F)

It is an advanced polymer able to stand high temperatures and direct contact with oil, grease, fuel and other solvents. It shows a low friction coefficient and is resistant to abrasion, shocks and fatigue.

*“TENAX specializes in high-end plastics and services that create customer and corporate value.”*

**TENAX**

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