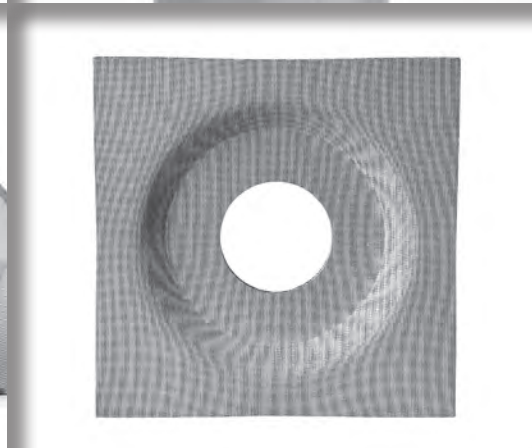
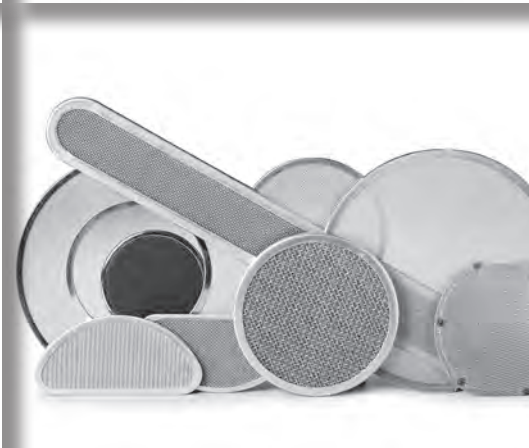
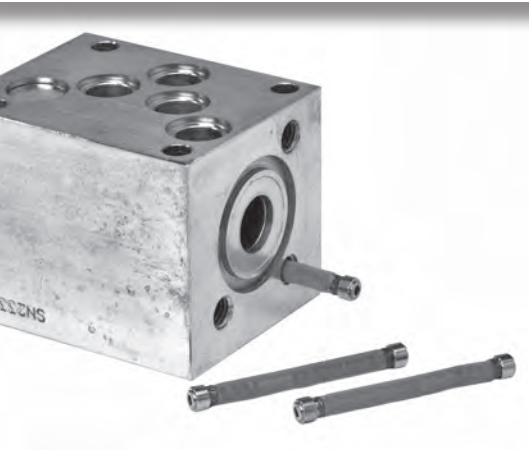
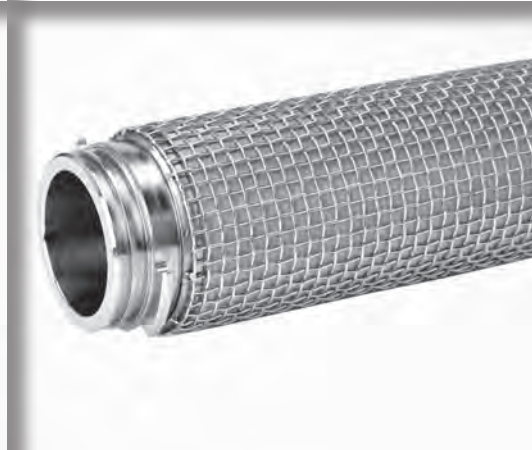


# **BOPP FI**

**Precision woven stainless steel filter mesh**



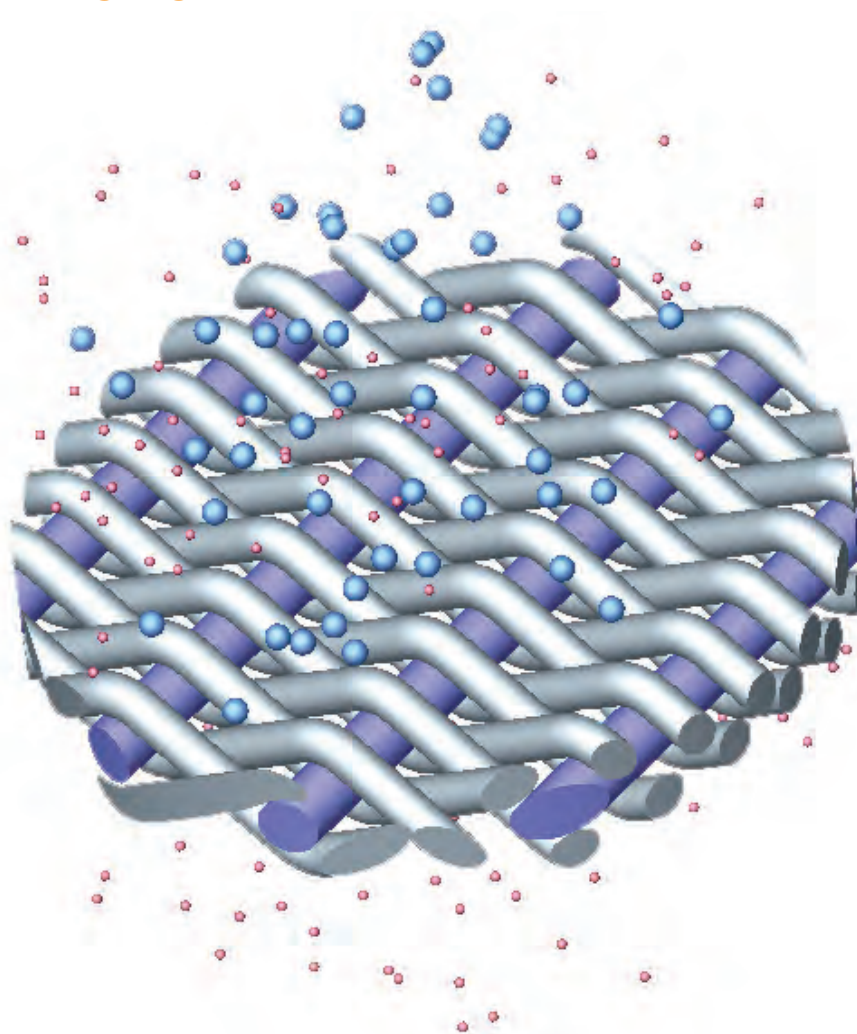
## OPTIMUM RESULTS WITH STEEL FILTER MESH

After screen printing, filtration is the most important application for BOPP meshes. Today's filter meshes and mesh combinations are the result of intensive research combined with the experience of countless different applications in diverse industrial sectors. The best filtration results can only be attained by achieving the optimum balance between the differing elements: premium quality materials, primarily stainless steel, fault free meshes, accurate handling and a comprehensive understanding of filtration processes in the most diverse applications.

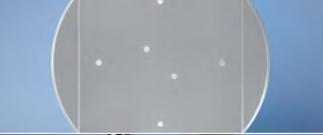



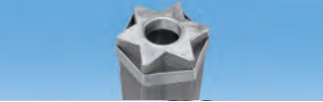





## FILTRATION USING BOPP MESHES

Using our meshes is your guarantee of secure and economical filtration results. As of the first flow of gases and liquids containing solids, the mesh will screen out all particles larger than the pores from the solids-bearing gases or liquids. These remain on the mesh surface and, with time, build up a filter cake, which works as a further filtration medium. The filtrate is removed when it becomes too thick or too compacted. Accurate pore distribution results in regular build up of filter cake, and the smooth surface of our meshes guarantees good cake release and backwashing properties.

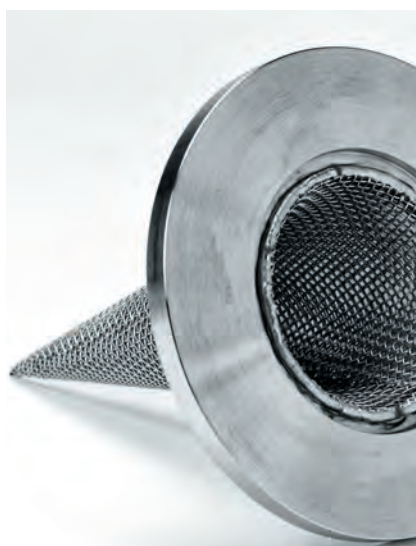


## EXAMPLES OF APPLICATIONS AND FEATURES

Industry sector	Type of filtration	Advantages, Features	
<b>Chemicals</b>	Candle filters Nutsche filters Dryers Bag filters	Easy to pleat Advanced levels of separation Defined flow, defined pressure differential Robust, easy to clean	
<b>Pharmaceuticals</b>	Belüftungselemente, Dryers, Fluidised bed floors, De-aeration filters, Chromatographie	Chemical resistance Defined flow, defined pressure differential Facilitates CIP (Cleaning in Place)	
<b>Hydraulics</b>	Filter elements and discs as dirt or control filter	Robust, precise Low pressure differential	
<b>Machine tools</b>	Coolant filter/filter drum	Low pressure differential	
<b>Mining</b>	Disc filter for coal/minerals High pressure hydraulic filter candles	Robust Stable to high pressure	
<b>Automotive industry</b>	Fuel filters Filters for brake fluid and servos	Accurate, low pressure differential	
<b>Foodstuffs</b>	Filters for oil presses Filter plates for juice and wine	Cleanable Chemical resistance	
<b>Plastics manufacture</b>	Melt filters Polymer candle filters Spinning filters	Accurate Stable to high pressure	

### THE MOST IMPORTANT CONSIDERATIONS IN TERMS OF CHALLENGES IN THE FILTRATION PROCESS ARE:

- Material
- Loading in operation;  
mechanical/thermal/chemical
- Pressure ratio
- Mass/ dimensions/ shape
- Installation situation
- Accessories
- Hygiene demands
- Ergonomics in operation
- Standards demands



### THE MOST IMPORTANT CONSIDERATIONS FOR SOLUTIONS TO DEMANDING FILTRATION APPLICATIONS ARE:

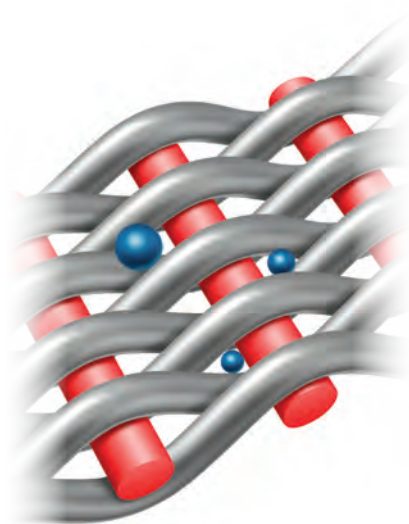
- Material
- Wire diameter
- Pore count, mesh size
- Filter fineness
- Mesh type/geometry
- Workability
- Bonding technology

## THE KEY TO PERFORMANCE FILTRATION: CHOOSING THE RIGHT MESH

We divide our meshes into single layer and multi-layer materials.

		Separation effect	Low pressure loss	High flow rates	Backwashability	Stability	Loadbearing	Porosity	Spot welding	Roll seam welding	TIG plasma welding	Resistance welding	Annealing	Stamping	Cutting	Bend radius	Pleating
Single layer filter meshes	Twilled Dutch weave	++	○	○	+	+	-	-	++	++	○		++	++	++	++	++
	Plain Dutch weave	++	+	++	++	++	-	○	++	++	-		++	++	+	++	++
	Betamesh	++	++	+++	+++	○	-	++	++	++	-		++	++	++	++	++
	Betamesh R	+	++	+++	+++	○	○	++	++	++	-		++	++	++	+	○
	Robusta	+	+	++	++	++	○	○	++	++	-		++	++	+	+	○
	Duplex	++	+	+	++	++	○	○	++	++	-		++	++	++	++	+
	Square weave mesh	○	++++	++++	++++	-	-	++	++	++	-		++	++	++	++++	+++
Multi-layer laminates	Poremet	++	-	-	○	++++	++++	-	++		++	++			○	○	-
	Absolta	++	○	○	+	+++	++++	○	++		+	-			○	-	-
	Topmesh 2	++	+	+	++	++	+	+	++		○	++			○	+	++
	Topmesh 3	++	+	+	++	++	++	+	++		+	-			○	○	+
	Poreflo	++	-	-	-	+++	+++	-	++		++	++			○	+	-

### ■ FILTER FINENESS AND PORE SIZE



The determination of geometric pore size is based on weaving parameters such as type of weave, warp and weft diameters and mesh count. The geometric pore size defines the diameter of the largest sphere passing through the weave.

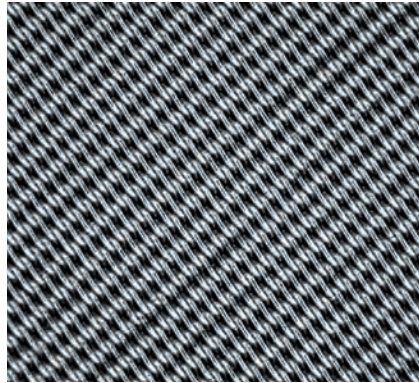
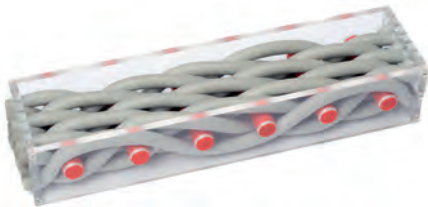
The underlying equations to determine the geometric pore size were developed and tested in laboratory conditions at the IMVT institute of the University of Stuttgart within the scope of the AVIF projects A224 and A251. For some weave specifications, where these equations are not valid, the pore size was determined in a dry glass bead test.

The filter fineness or pore size is an important characteristic of filter meshes.

Today, this statistic is only given in terms of the absolute filter fineness. This means the diameter of the largest solid spherical particle, which can pass through the filter medium under static flow conditions. Two processes are used to establish this value, the glass bead test and the bubble point test, according to APR 901. In practice, the latter is more often used, as the glass bead test is very complex.

## SINGLE LAYER MESHES

### ■ TWILLED DUTCH WEAVE



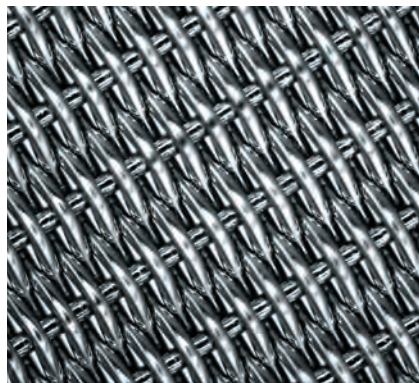
For monofilaments, a twilled dutch mesh weave produces the smallest pores and a smooth mesh surface, whilst the larger material cross section gives higher levels of mesh stability. When passing through a twilled dutch mesh, the particles must negotiate

five offset pore levels. This means that oblong, thin, rod-shaped and fibrous particles are securely retained. Fine specification twilled meshes are used for fine filtration such as pressure filtration in hydraulic steering equipment and fuel filters for critical applications.

Coarser specification twilled dutch meshes are used for pressure and vacuum filtration (disc, cell and drum filters) and as a porous medium for fluidised bed applications. These meshes are usually manufactured from stainless steel.

6

### ■ PLAIN DUTCH WEAVE

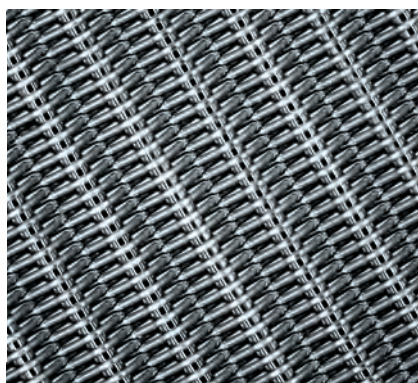
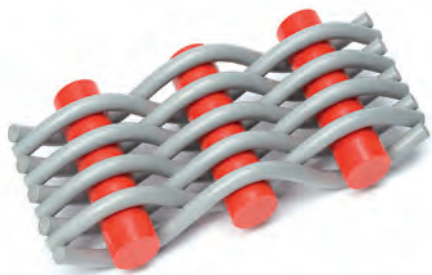


These meshes have a slightly textured surface and are particularly useful for

high flow rates and low pressure loss. They are used where mechanical loading

is increased, such as for settling filters and filter candles.

## ■ BETAMESH

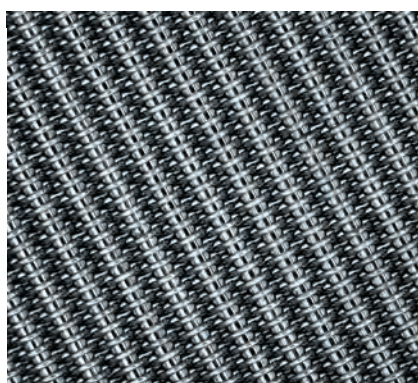


Betamesh is a further development from plain weave mesh. In comparison to the standard plain weave, it has a greater pore count, and the pores on the surface are smaller than the inner pores. The mesh therefore achieves higher flow rates and greater dirt removal

capabilities, and also features exceptional backwashing performance. These meshes are generally used for oil and fuel systems, subject to higher levels of contamination, and also to protect steering and fuel injection jets as well as friction bearings.

Betamesh R is a variant developed for simpler filtration tasks, which is particularly suitable for higher mechanical loadings due to the Robusta mesh design.

## ■ ROBUSTA



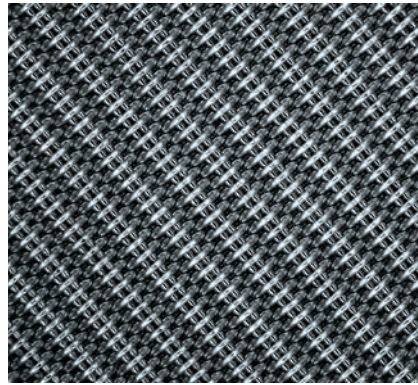
Thanks to higher levels of porosity, this mesh can withstand particularly high flow rates. A regular

cross section in both warp and weft directions facilitates the highest mechanical loadings. These

robust meshes are used for settling filters, filter candles, vacuum filters and well filters.

# BOPP FI Precision woven stainless steel filter mesh

## ■ DUPLEX



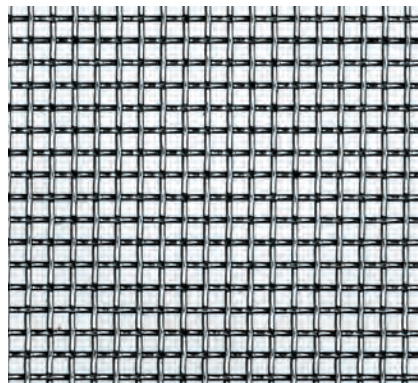
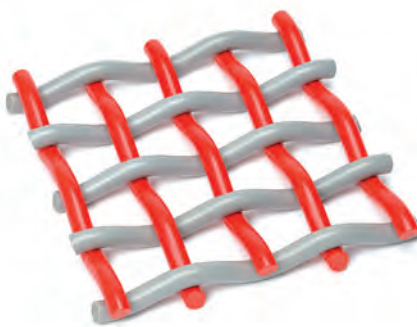
These meshes also achieve high flow rates and can withstand high mechanical

loadings. Duplex meshes are the preferred choice for applications such as pressure

and vacuum filters, as well as filter candles.

8

## ■ SQUARE WEAVE MESH



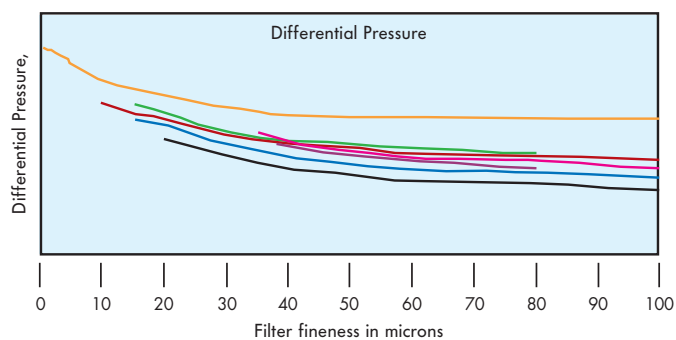
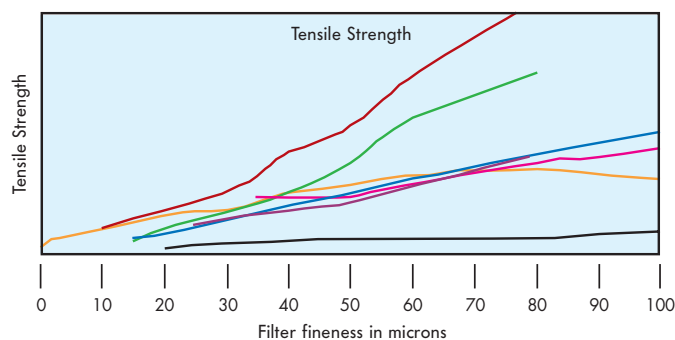
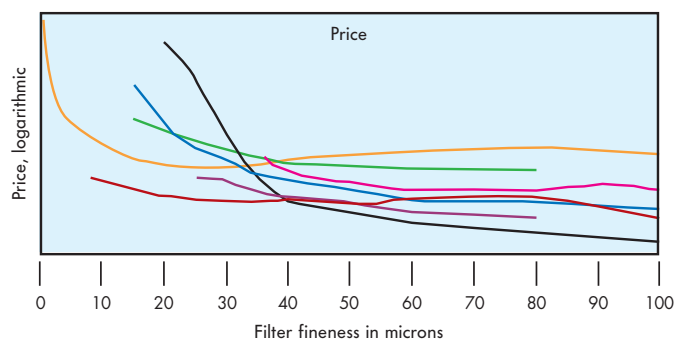
In contrast to the twilled meshes, the wires in this design of mesh are woven with a gap. This results in open apertures, which liquids can stream through. Exceptionally low resistance

and particularly effective backwashing are two particular characteristics of this mesh. Square weave meshes are used for dirt filters with low pressure differentials, for applications

such as backwashing in conjunction with support meshes.



## ■ FILTER MESH COMPARISON



## ■ PROPERTIES AND ADVANTAGES OF BOPP MESHES:

- Advanced stability
- Flat surface structure
- High resistance to abrasion
- Regular pore distribution
- Narrow pore size allocation
- Good plasticity
- Good flow rates
- No particle detachment
- Chemical and thermal resistance
- Easy to clean
- Advanced reliability

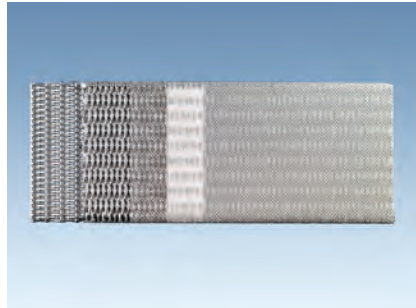
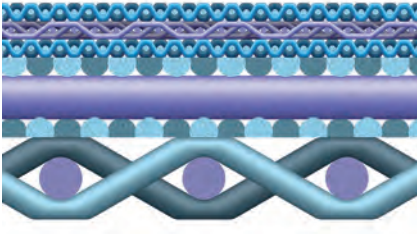
## ■ BOPP FILTER MESHES ARE INSTALLED IN A WIDE RANGE OF DIFFERENT INDUSTRY SECTORS, INCLUDING:

- Equipment, machinery
- Automotive/ vehicle manufacturing
- Mining, production of raw materials
- Chemicals, pharmaceuticals, biotechnology
- Energy management
- Hydraulics industry
- Plastics industry
- Food and drink
- Air and space travel
- Engineering industry
- Medical technology
- Metalworking
- Paper and wood
- Petrochemicals and oil industries
- High precision mechanics
- Process industry
- Shipping and shipbuilding
- Footwear and clothing
- Textiles
- Environmental technology

## MULTI-LAYER SINTERED MESHES (LAMINATES)

Our product portfolio includes a range of highly developed mesh laminates for diverse applications. On request, we can produce bespoke mesh combinations with special properties.

### POREMET

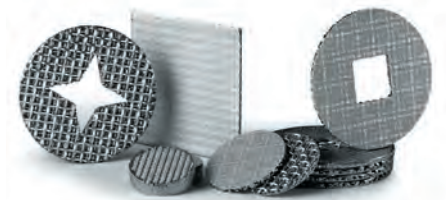
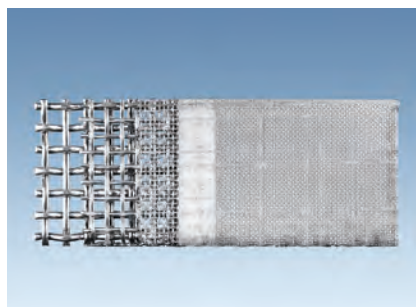
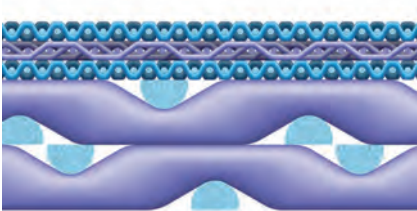


**POREMET** is a plate-like filter medium consisting of five different layers of mesh. The mesh layers are put together and sintered

using both heat and pressure. The special design achieves an optimum combination of stability, filter fineness, flow rate and back-

washing properties. POREMET is used primarily for the filtration of highly viscous liquids.

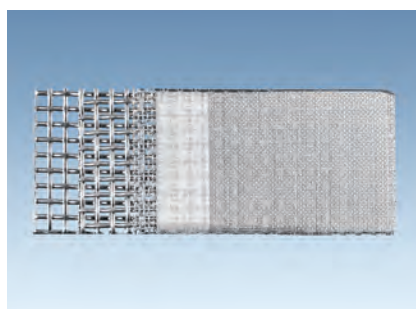
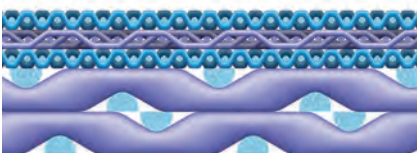
### ABSOLTA N



**ABSOLTA N** is a laminated sinter mesh, similar to POREMET with optimum flow

rates and backwashing capabilities.

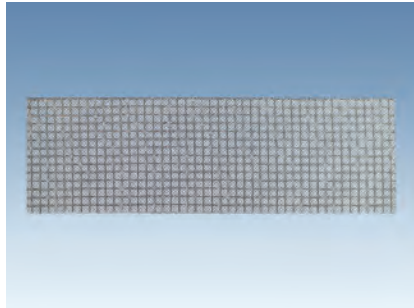
### ABSOLTA D



**ABSOLTA D** is a five layer construction with a reduced thickness of 1.7 to 1.8 mm.

ABSOLTA meshes are used in liquid and gas filtration applications.

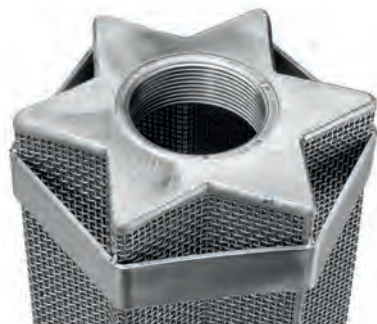
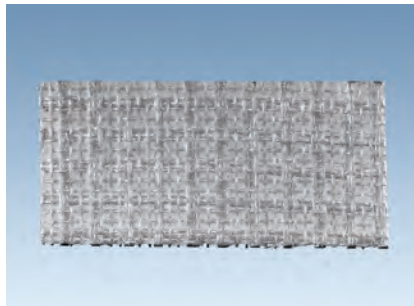
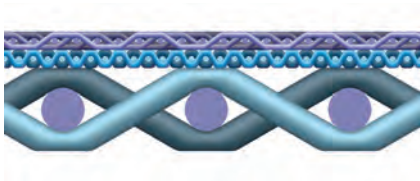
■ **TOPMESH 2**



**TOPMESH 2** is a two layer combination consisting of a filter mesh and a support mesh. Sintering the two together results in

a robust filter medium for fine filtration in harsh industrial conditions.

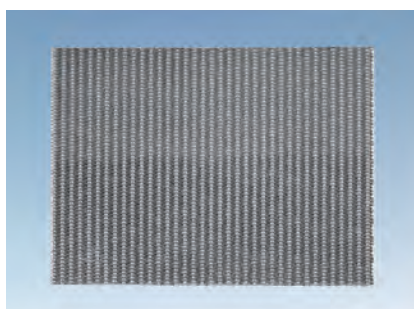
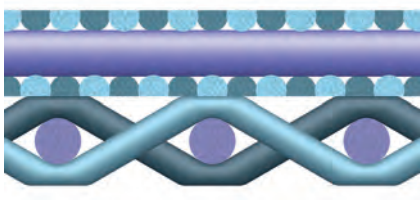
■ **TOPMESH 3**



**TOPMESH 3** is a stronger version, strengthened using two support mesh layers. This mesh is used

for even tougher conditions.

■ **POREFLO**



**POREFLO** is a plate-like, two or three layer laminate, where offset layered filter meshes are compressed to achieve different levels of

filter fineness. The laminate is transformed into an air permeable metallic membrane, which is used in fluidisation and aeration applications

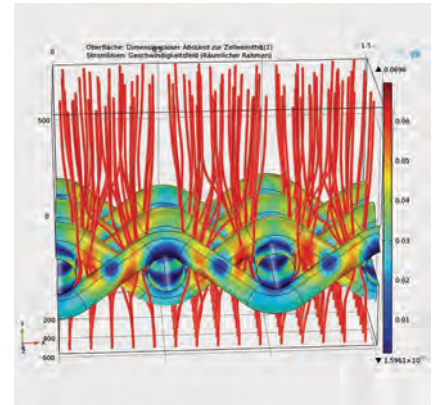
and in fluidised bed technology.

## BOPP OFFERS MUCH MORE THAN PREMIUM QUALITY MESHES

### ■ ENGINEERING

Which alloy should be used? Which mesh is best? What improvements are possible with existing applications? Our specialists make sure you are satisfied with the results.

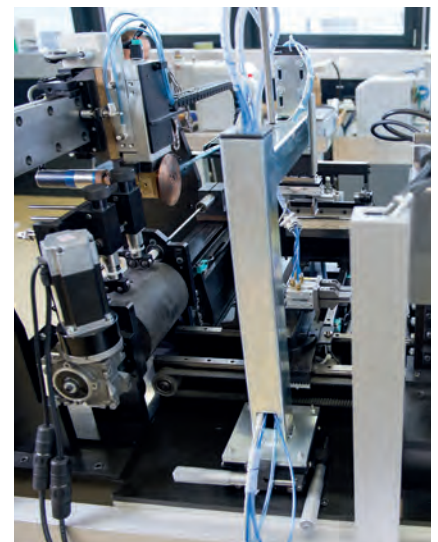
- Choice of material
- Application technology, component design
- Analysis, optimisation
- Certification, expertise



### ■ PRODUCT DEVELOPMENT, PRODUCTION

Correct handling of fine meshes demands specific knowledge and equipment. Our personnel are skilled and benefit from decades of relevant experience.

- Engineering consultancy
- Processing
- Thermal and chemical finishing
- Equipment and knowledge building
- Prototyping, single unit production
- Mass production
- Spare parts
- OEM parts
- Site services



### ■ LOGISTICS

Reliability, security, economy and flexibility – these are standard considerations for our logistics and ancillary services.

- Computerised stock control
- Consignment warehouse
- JIT deliveries
- Professional goods packaging
- Economical modes of transport



## GOOD REASONS TO CHOOSE BOPP



Zurich



Wolfhalden

### ■ QUALITY

Our premium meshes are manufactured using state of the art equipment. The majority of our raw materials are produced in our own wire drawing plant.

### ■ EXPERIENCE

Over decades, we have analysed and optimised hundreds of challenging filtration processes and developed a whole range of new solutions.

### ■ ECONOMY

We are always finding new ways to increase production efficiency whilst retaining the same high standards of quality.

### ■ REPRODUCIBILITY

We maintain process orientated procedures and thereby guarantee maximum reproducibility.

### ■ SECURITY

We manufacture in an economically and commercially stable environment and, together with a comprehensive stockholding, can guarantee above average levels of product availability.

### ■ ENVIRONMENTAL AWARENESS

Our equipment conforms to the very latest standards in terms of energy consumption and environmental sustainability. We are active participants in schemes to reduce our energy consumption and members of Cleantech organisations.

## TECHNICAL DATA FILTER MESH

Mesh type	Geometric pore size µm	Mesh description Mesh	Yield Warp/Weft R <sub>p</sub> N/cm	Number of pores N <sub>pores</sub> /cm <sup>2</sup>	AsK mm <sup>2</sup> /cm	AsS mm <sup>2</sup> /cm	Porosity %	A <sub>Orat</sub> %	Gewicht kg/m <sup>2</sup>	Mesh thickness mm	specific flow-rate ratio Eu	
<b>Twilled dutch weave</b>	6	510 x 3600	40 / 100	142000	0.1	0.25	35	5	0.28	0.05	5033	
	8	450 x 2750	35 / 140	94000	0.09	0.33	33	4	0.35	0.06	4959	
	8	375 x 2300	60 / 160	63000	0.12	0.42	33	4	0.46	0.08	4766	
	10	350 x 2600	55 / 148	72800	0.11	0.39	38	6	0.39	0.08	3064	
	10	325 x 2300	65 / 160	54000	0.15	0.42	34	4	0.46	0.08	3196	
	14	200 x 1400	140 / 230	21000	0.3	0.67	33	4	0.81	0.15	2505	
	18	200 x 2000	65 / 180	32000	0.15	0.48	42	8	0.50	0.11	1193	
	21	165 x 1100	130 / 230	14520	0.25	0.69	36	5	0.81	0.16	1472	
	21	165 x 1400	130 / 230	17000	0.25	0.67	37	6	0.76	0.15	1320	
	46	80 x 700	130 / 480	4500	0.25	1.25	38	7	1.18	0.25	523	
	88	40 x 560	200 / 600	1700	0.4	1.67	44	11	1.72	0.38	208	
	<b>*Breitmaschen-Köpertressengewebe</b>	121	30 x 360	280 / 900	840	0.58	2.5	42	9	2.49	0.55	181
166		20 x 250	180 / 1300	380	0.39	3.67	39	6	3.34	0.69	168	
30*		+165 x 800	130 / 270	10200	0.25	0.67	46	8	0.74	0.17	532	
30*		+200 x 600	110 / 150	9300	0.22	0.38	59	9	0.48	0.15	237	
<b>Plain dutch weave</b>		45	80 x 400	200 / 210	9400	0.39	0.59	62	19	0.82	0.26	245
		45	80 x 300	210 / 255	7440	0.42	0.75	62	20	0.92	0.31	209
		72	50 x 250	150 / 320	3700	0.3	0.94	65	16	1.03	0.36	103
		91	40 x 200	210 / 400	2400	0.4	1.17	65	15	1.3	0.46	86
		120	30 x 150	260 / 520	1400	0.49	1.5	65	16	1.61	0.59	59
		153	24 x 110	500 / 720	770	0.96	2.17	63	13	2.64	0.88	68
		162	20 x 150	200 / 500	930	0.39	1.5	68	27	1.53	0.61	39
		256	14 x 88	550 / 900	370	1.08	2.67	66	23	3.13	1.14	37
	301	12 x 64	650 / 1200	240	1.34	3.51	65	22	3.9	1.44	29	
	306	8 x 85	150 / 900	210	0.32	2.67	69	28	2.44	1	20	
	<b>Betamesh</b>	15	Betamesh 15	55 / 70	75300	0.14	0.17	65	22	0.25	0.09	556
		20	Betamesh 20	70 / 90	52200	0.17	0.21	64	27	0.32	0.11	520
25		Betamesh 25	95 / 100	38000	0.22	0.26	64	31	0.37	0.13	431	
30		Betamesh 30	110 / 110	28200	0.27	0.28	64	33	0.45	0.15	410	
35		Betamesh 35	130 / 120	21200	0.32	0.32	64	33	0.51	0.17	353	
40		Betamesh 40	140 / 140	16300	0.35	0.35	65	34	0.57	0.2	299	
50		Betamesh 50	190 / 190	10900	0.45	0.43	64	35	0.72	0.25	244	
60		Betamesh 60	210 / 230	7400	0.53	0.51	65	34	0.86	0.3	209	
75		Betamesh 75	280 / 240	4600	0.69	0.69	64	34	1.11	0.38	176	
90		Betamesh 90	330 / 320	3200	0.82	0.75	65	33	1.31	0.46	139	
<b>Betamesh R</b>		28	Betamesh R 25	75 / 210	29100	0.23	0.62	55	24	0.68	0.19	727
		36	Betamesh R 34	90 / 210	20900	0.29	0.65	56	32	0.75	0.22	553
	43	Betamesh R 48	110 / 180	11200	0.38	0.53	63	35	0.73	0.25	271	
	80	Betamesh R 80	180 / 220	3800	0.65	0.79	64	32	1.15	0.42	129	
<b>Robusta</b>	17	720 x 150	95 / 205	33500	0.27	0.58	52	14	0.69	0.18	1122	
	19	625 x 130	100 / 250	25188	0.34	0.68	50	12	0.82	0.21	1071	
	21	600 x 125	100 / 220	23300	0.34	0.6	53	17	0.75	0.2	747	
	31	600 x 100	100 / 220	18600	0.33	0.61	57	30	0.75	0.22	517	
	40	280 x 70	210 / 330	6100	0.71	0.95	56	23	1.34	0.39	326	
	53	175 x 50	400 / 480	2700	1.23	1.39	55	15	2.11	0.6	254	
	65	140 x 40	600 / 550	1700	1.55	1.79	55	32	2.8	0.76	221	
	83	130 x 35	520 / 600	1400	1.63	1.73	57	17	2.7	0.8	154	
	151	108 x 24	600 / 330	804	2.09	0.96	63	24	2.5	0.86	59	
	175	86 x 21	690 / 360	560	2.39	1.04	64	22	2.8	1	45	
	75*	+400 x 125	160 / 135	3900	0.55	0.39	58	16	0.75	0.23	119	
	<b>Duplex</b>	19	Duplex 15	60 / 130	39200	0.12	0.27	60	11	0.3	0.1	271
23		Duplex 20	100 / 180	22300	0.21	0.38	57	9	0.47	0.14	310	
37		Duplex 30	100 / 230	11400	0.2	0.47	60	11	0.56	0.18	157	
55		Duplex 35	240 / 400	3700	0.52	0.94	57	7	1.21	0.35	155	
58		Duplex 45	180 / 350	3700	0.39	0.94	57	10	1.1	0.34	123	
82		Duplex 60	540 / 580	1260	1.16	1.67	52	6	2.34	0.65	130	
112		Duplex 75	570 / 660	870	1.16	1.92	54	7	2.59	0.74	92	
<b>Quadratmaschen-gewebe</b>	20	w 0,020 mm - d 0,020 mm	25 / 25	62500	0.08	0.08	63	25	0.13	0.04	136	
	25	w 0,025 mm - d 0,025 mm	35 / 35	40000	0.1	0.1	63	25	0.16	0.05	111	
	32	w 0,032 mm - d 0,025 mm	30 / 30	30779	0.09	0.09	68	32	0.14	0.05	65	
	42	w 0,042 mm - d 0,036 mm	45 / 45	16437	0.13	0.13	66	29	0.21	0.08	57	
	50	w 0,050 mm - d 0,040 mm	45 / 45	12346	0.14	0.14	67	31	0.23	0.09	45	
	63	w 0,063 mm - d 0,040 mm	40 / 40	9426	0.12	0.12	71	37	0.2	0.09	28	
	71	w 0,071 mm - d 0,050 mm	55 / 55	6830	0.16	0.16	70	34	0.26	0.11	29	
	80	w 0,080 mm - d 0,050 mm	50 / 50	5917	0.15	0.15	72	38	0.24	0.11	23	
	100	w 0,100 mm - d 0,065 mm	70 / 70	3673	0.2	0.2	71	37	0.33	0.14	20	

**Geometric pore size** The geometric pore size is a calculated value which is based on characteristic parameters such as weave structure, wire diameter and pitch. The geometric pore size describes the diameter of the largest sphere, which can just pass through the fabric. The calculation equations were developed and validated experimentally by the IMVT Institute of the University of Stuttgart as part of the AVIF projects A224 and A251. For fabric specifications for which the calculation method does not apply the pore sizes were determined by a glass bead dry screening.

**Yield strength R<sub>p</sub>** Maximum permissible load of the fabric in the warp or weft direction, without introducing a significant permanent deformation into the weave.

**AsK** Effective material cross sectional area in the section perpendicular to the warp direction of the fabric. This material cross sectional area transfers the tensile forces in the warp direction.

**AsS** Effective material cross sectional area in the section perpendicular to the weft direction of the fabric. This material cross sectional area transfers the tensile forces in the weft direction.

**Porosity** Ratio of empty volume in the mesh to total volume of the weave. The total volume is defined by the external dimensions length, width and thickness of the weave.

**A<sub>Orat</sub>** Ratio of theoretical free flow area to area of the weave. The theoretical free flow area is the smallest cross sectional area in the flow path through the pores.

**Eu** Dimensionless Euler number to assess the ratio of pressure forces to inertial forces in the specified weave. Higher values mean higher pressure difference values under the same conditions (air, 20 m / min, 20 ° C). The values are only intended for comparisons of flow resistance of different weave specifications.

The table data are typical values. No warranted characteristics can be derived from the data. We reserve the right to make technical changes and improvements.

## TECHNICAL DATA SINTERED MESH LAMINATES

Description		Geometric pore size $\mu\text{m}$	Thickness mm	Porosity %	Pressure Drop mbar	$A_s$ mm <sup>2</sup> /cm	$R_p$ N/cm	Weight kg/m <sup>2</sup>	specific flow-rate ratio $E_u$	
<b>Poremet</b>	Poremet 2	10	1.7	30	6.80	5.1	1080	9.50	5146	
	Poremet 5	14	1.7	30	5.00	5.1	1080	10.00	3784	
	Poremet 10	21	1.7	30	3.10	5.1	1080	10.00	2346	
	Poremet 15	20	1.7	30	2.05	5.1	1080	9.50	1551	
	Poremet 20	25	1.7	30	1.91	5.1	1080	9.50	1446	
	Poremet 30	35	1.7	30	1.69	5.1	1080	9.50	1279	
	Poremet 40	50	1.7	30	1.54	5.1	1080	9.50	1166	
	Poremet 50	60	1.7	30	1.43	5.1	1080	10.00	1082	
	Poremet 60	75	1.7	30	1.34	5.1	1080	10.00	1014	
<b>Absolta</b>	Poremet 75	90	1.7	30	0.56	5.1	1080	10.00	424	
	Absolta 2	10	2.5	55	4.30	4.9	780	9.00	3254	
	Absolta 5	14	2.5	55	3.30	4.9	780	9.00	2498	
	Absolta 10	21	2.5	55	2.25	4.9	780	9.00	1703	
	Absolta 15	20	2.5	55	1.46	4.9	780	8.50	1105	
	Absolta 20	25	2.5	55	0.61	4.9	780	8.50	462	
	Absolta 30	35	2.5	55	0.53	4.9	780	8.50	401	
	Absolta 40	50	2.5	55	0.40	4.9	780	8.50	303	
	Absolta 50	60	2.5	55	0.29	4.9	780	9.00	219	
<b>Topmesh 3-layer</b>	Absolta 60	75	2.5	55	0.19	4.9	780	9.00	144	
	Absolta 75	90	2.5	55	0.08	4.9	780	9.00	61	
	TM3-KT 2	10	2.0	60	3.54	3.6	573	6.60	2682	
	TM3-KT 5	14	2.0	60	2.77	3.6	573	6.60	2099	
	TM3-KT 10	21	2.0	60	1.72	3.6	573	6.60	1298	
	TM3-BM 15	15	2.0	60	0.62	3.6	573	6.60	469	
	TM3-BM 20	20	2.0	60	0.58	3.6	573	6.20	439	
	TM3-BM 25	25	2.0	60	0.47	3.6	573	6.20	356	
	TM3-BM 30	30	2.0	60	0.35	3.6	573	6.20	265	
	TM3-QM 40	42	2.0	60	0.13	3.6	573	6.10	98	
	TM3-QM 50	50	2.0	60	0.11	3.6	573	6.10	83	
	TM3-QM 60	63	2.0	60	0.08	3.6	573	6.10	61	
	TM3-QM 80	80	2.0	60	0.07	3.6	573	6.10	53	
	TM3-QM 100	100	2.0	60	0.07	3.6	573	6.20	53	
	TM3-QM 150	160	2.0	60	0.06	3.6	573	6.20	45	
	TM3-QM 200	200	2.0	60	0.06	3.6	573	6.20	45	
	TM3-QM 500	530	2.0	60	0.03	3.6	573	6.20	23	
<b>Topmesh 2-lagig</b>	TM2-KT 2	10	0.7	60	4.60	1.3	207	2.30	3481	
	TM2-KT 5	14	0.7	60	3.80	1.3	207	2.30	2876	
	TM2-KT 10	21	0.7	60	1.80	1.3	207	2.30	1362	
	TM2-BM 15	15	0.7	60	0.71	1.3	207	2.30	537	
	TM2-BM 20	20	0.7	60	0.53	1.3	207	2.30	401	
	TM2-BM 25	25	0.7	60	0.48	1.3	207	2.30	363	
	TM2-BM 30	30	0.7	60	0.40	1.3	207	2.30	303	
	TM2-BM 40	40	0.7	60	0.38	1.3	207	2.30	288	
	TM2-QM 50	50	0.7	60	0.10	1.3	207	2.30	76	
	TM2-QM 60	61	0.7	60	0.09	1.3	207	2.30	68	
	TM2-QM 80	80	0.7	60	0.06	1.3	207	2.30	45	
	TM2-QM 100	100	0.8	70	0.04	1.3	207	1.77	30	
	TM2-QM 150	150	0.8	70	0.03	1.3	207	1.77	23	
	TM2-QM 200	250	1.4	65	0.03	1.3	207	3.75	23	
	TM2-QM 500	530	1.4	65	0.02	1.3	207	3.75	15	
	<b>Poreflo</b>	PF-303		1.25	10	100.00	5.2	1101	8.80	75683
		PF-304		1.45	15	50.00	5.2	1101	9.60	37841
PF-305			1.60	20	20.00	5.2	1101	9.90	15137	
PF-206			0.85	10	10.00	4.8	1016	7.20	7568	
PF-207			1.00	12	5.00	4.8	1016	7.20	3784	
PF-208			1.05	14	2.50	4.8	1016	7.30	1892	
PF-209			1.20	20	1.25	4.8	1016	7.50	946	
PF-211			1.45	35	0.70	4.8	1016	7.50	530	

**Geometric pore size** The geometric pore size is a calculated value which is based on characteristic parameters such as weave structure, wire diameter and pitch. The geometric pore size describes the diameter of the largest sphere, which can just pass through the fabric. The calculation equations were developed and validated experimentally by the IMVT Institute of the University of Stuttgart as part of the AVIF projects A224 and A251. For fabric specifications for which the calculation method does not apply the pore sizes were determined by a glass bead dry screening.

**Porosity** Ratio of empty volume in the mesh to total volume of the weave. The total volume is defined by the external dimensions length, width and thickness of the weave.

**Pressure drop** It is calculated for gas at an inflow speed of ca 20m/min. The values are suitable for comparing the laminates.

**$A_s$**  Is the effective average of the wires, which run perpendicular to the cut edge.

**$R_p$**  Is the value of the yield load perpendicular to the cross-section  $A_s$  of the weave, which should not be exceeded.

**$E_u$**  Dimensionless Euler number to assess the ratio of pressure forces to inertial forces in the specified weave. Higher values mean higher pressure difference values under the same conditions (Air, 20 m/min, 20 °C). The values are only intended for comparisons of flow resistance of different weave specifications.

The values given in these tables are typical for sintered meshes. These properties are not guaranteed. We retain the right to make technical changes and to implement further developments.

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