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«THE ART OF SWISS PRECISION»

### **BOPP – Your partner for composite meshes**



Established in 1881 in Switzerland, G. BOPP + Co, AG soon developed from a manufacturer of coarse mesh products into a world leader for the finest high tech filter meshes. The very finest wire diameters from as little as 0.015mm are woven to the highest standards of quality into high tech filter meshes for a comprehensive range of applications in filtration. BOPP supplies a global market and has subsidiary companies in Germany, UK, Italy, Sweden, USA, Korea and China.

Zurich headquarters

### **Know-How from decades of experience**

BOPP has been manufacturing composite meshes for almost 40 years. Over this time, we have amassed a wealth of experience, constantly developing our portfolio. Once measuring just 500mm x 500mm in diameter, we can now produce discs up to 1200mm x1200mm, which can be welded together using our own production techniques developed in-house to create composite discs measuring several metres in diameter. Today, we continue to achieve new milestones in mesh processing and fabrications. Take a look at our growing range of services.



Welded composite discs up to 3 metres in diameter

### **Our production principles**

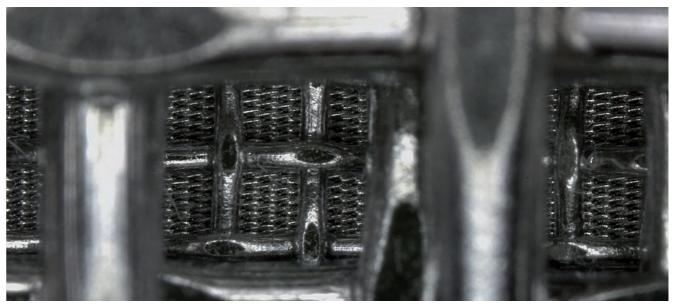
We only use premium raw materials in the manufacture of our products. Processing takes place in dust-free, airconditioned workshops using modern equipment and high precision weaving machines developed in-house. Combined with comprehensive quality control processes, we guarantee optimum quality, cleanliness and accuracy.





### The fundamental principle of sintering

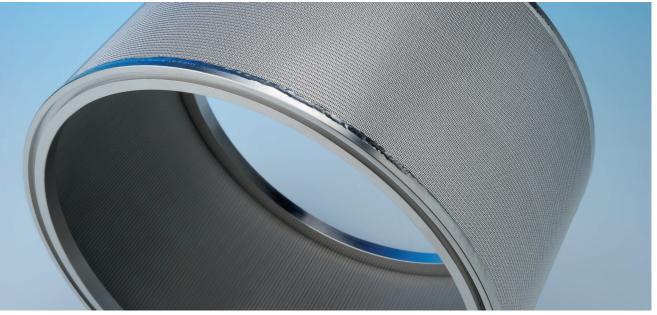
BOPP manufactures a comprehensive range of single layer facilitates optimised filtration processes. Composite meshes meshes. Each design has its own individual properties and created this way allow for the finest filtration results and are strengths. During the sintering process, selected meshes especially resistant to compressive loading across the entire are bonded together using heat and pressure. This effectively surface, thanks to thousands upon thousands of points of combines the advantages of the individual mesh layers and contact between the support and filter layers.



Multilayer composite meshes under the high-performance microscope

### **Composite meshes for demanding** filtration applications

Multi-layer meshes are particularly suited to demanding filtration Building on our experience in the most diverse practical apapplications for a variety of reasons. Standard two-, threeplications, over the years we have developed a standard and five-layer composite meshes offer many additional portfolio of products covering a broad spectrum of industrial advantages alongside improvements in physical stability and challenges. For certain applications, it may be advisable to longevity, which more than compensate for the slightly higher select a bespoke material or style of weave. The individual mesh layers can be combined in almost any configuration. cost price.



Customised composite meshes



### **Properties and advantages** of BOPP composite meshes

Using state of the art technologies and equipment, we optimise our meshes and sinter these to form composite meshes, targeting even more impressive benefits for your application.

#### **Aperture sizes**

Extremely precise apertures and aperture size distribution across the entire surface of the composite mesh.

#### Robust

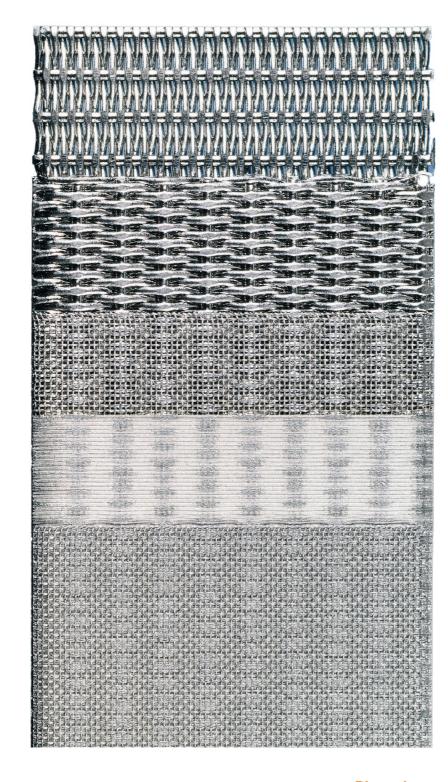
Our composite meshes demonstrate exceptional robustness to mechanical and thermal influences. Dependent upon the alloys, the composite meshes are capable of withstanding temperatures up to 600°C.

#### Longevity

Our composite meshes excel in terms of longevity and therefore reduced downtime.

#### Cleanability

The relatively smooth mesh surfaces are easy to clean and can withstand higher backwashing pressures.



#### Flow rates

Our composite meshes are specially designed for high flow rates.

### **Corrosion resistance**

#### Quality

#### **Customer specific**

Individually selectable layering and combinations of up to 1000 mesh layers are possible.

#### Load

Reduced loading of the filter media with pulsation.

### **Dimensions**

Disc sizes up to 1200mm x 1200mm without welds.



Use of high-grade materials such and stainless steel, Hastelloy, etc results in increased levels of corrosion resistance.

> Our manufacturing processes are designed to achieve high levels of product quality thanks to special attention to reproducibility.

### **Composite meshes in action**

Composite meshes from BOPP provide a reliable choice for applications where single layer meshes reach their limits due to restricted stability. They provide the ideal solution for many different sectors.





**Biotech/Pharma** 

Used primarily in chromatography columns, composite meshes demonstrating high precision filter pores form the key component of this equipment.

**Chemical Industry** Whether in gas or liquid form, our composite meshes achieve high precision filtration results and a faultless product.



**Plant and Equipment** Our Nutsche filters using Absolta and Poremet provide the perfect choice, in sections with or without curved

surface or in the shape of discs



Water Industry

Everywhere increased water pressure occurs in filtration applications, our Absolta and Topmesh-PLUS 2 & 3 offer the ideal solution.



**Drinks Industry** 

Premium white wines are usually filtered in sheet filters using Topmesh 3, whilst breweries choose Absolta for source water filtration.



Fluidisation

Poreflo is our solution where fine parmonly found in silos.



Fuel Filtration

Composite meshes used in the filtration ticulates need to be transferred to a of diverse fuels ensure low wear engine flowable state, as for example com- operation and an extended service life.



**Green Technology** Mostly customised composite meshes are used in green technology applications. See page 14.



Wind tunnels Aerodynamic effects in wind tunnels can be created using multi-layer meshes. See page 14.



Acoustics

Acoustic meshes ensure perfect sound quality. Where the mesh must also provide ingress protection, we added a laminated support layer.

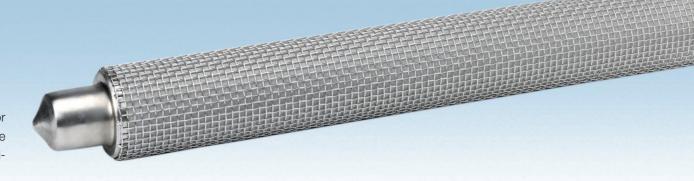


Air

Either for increased air flow or in drying applications at high temperatures, our composite meshes provide reliable service.



**Hydraulics** Filters using composite meshes for high compressive loads protect the hydraulic equipment from foreign particles and abrasion.







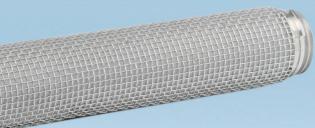
#### **Food Industry**

Whether filtering additives or operating in environments where robustness is a particular requirement, composite meshes are the material of choice.



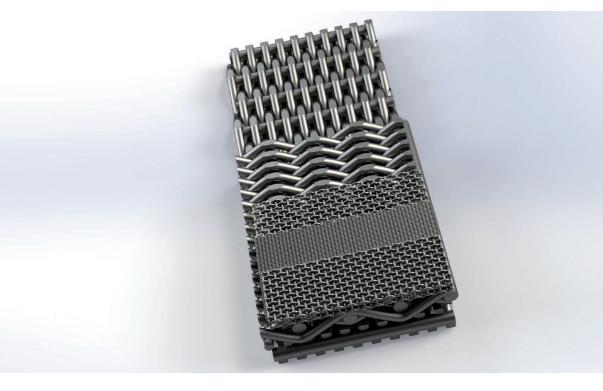
Air and Space Travel

Composite meshes are primarily used in rocket engines for mixture control.



### POREMET

This lead-like filter medium with highly precise apertures consists of five different wire cloth layers, put together so precisely that they achieve the optimum combination of stability, filter fineness, flow rate and backwashing properties. POREMET is particularly suitable for fine and finest filtration applications at high pressures and harsh operating environments.



#### **Materials**

- DIN 1.4404 / AISI 316L, DIN 1.4539 / AISI 904L
- Hastelloy alloys C22 / DIN 2.4602
- Other materials available on request

#### **Application recommendations**

Filtration of highly viscous liquids: Nutsche filters, centrifuges, fluidised beds, applications in biotechnology.

#### Layer build-up

- Protective layer of square weave mesh, protects the filter mesh against damage
- Filtration layer, defines the filter fineness
- Distribution layer (square weave mesh), drainage mesh
- Upper twilled layer, support mesh
- Lower twilled layer, support mesh

#### Geometric pore size

10-90 microns

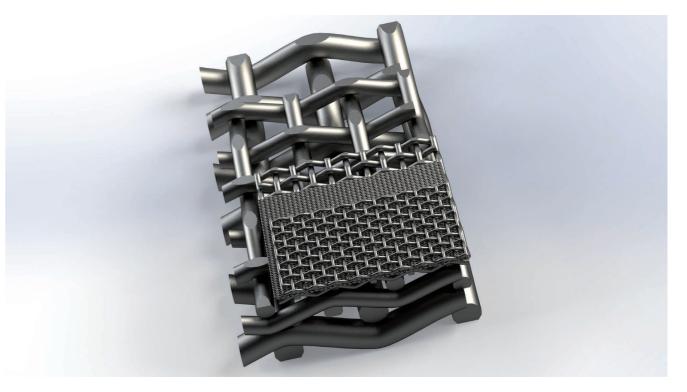
Thickness

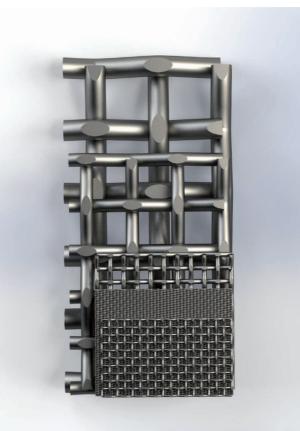
1.7mm (Other thicknesses on request)



### ABSOLTA

In contrast to POREMET, **ABSOLTA N** is a highly porous filter medium developed to achieve increased flow rates at moderate pressures. ABSOLTA is particularly useful for its cleanability and backwashing capabilities. **ABSOLTA D** is also a five layer structure at a reduced thickness.







#### **Materials**

- DIN 1.4404 / AISI 316L, DIN 1.4539 / AISI 904L
- Hastelloy alloys C22 / DIN 2.4602
- Other materials available on request

#### **Application recommendations**

Optimum flow rates and backwashing properties make ABSOLTA ideal for applications in liquid and gas filtration.

#### Layer build-up

- Protective layer of square weave mesh, protects the filter mesh against damage
- Filtration layer, defines the filter fineness
- Distribution layer (square weave mesh), drainage mesh
- Inner support mesh, square weave mesh
- Outer support mesh, square weave mesh

#### Geometric pore size

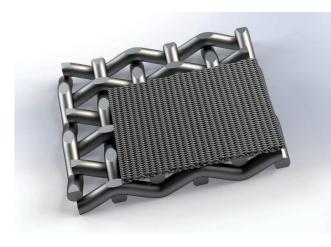
10-90 microns

#### Thickness

2.4mm, (ABSOLTA D 1.70-1.80mm)

### **TOPMESH 2**

TOPMESH 2 was developed to compensate for the reduced rigidity of fine filter cloths. Combining a filter cloth with a square weave support mesh provides stability at moderate pressures combined with good backwashing properties. A minimal number of layers means reduced pressure loss combined with effective backwashing. TOPMESH 2 is therefore ideal for CIP (Cleaning in Place) filters in the pharmaceutical industry. For applications where high pressure loads and larger diameter units are used, additional support media will be required.

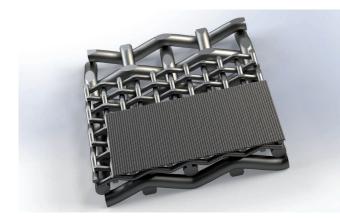


#### **Application recommendations**

Filters for the separation of separate solids and liquids, surface filtration for particulate separation, sieve plates, aeration filters, hydraulic filters, backwashing filters (also automated), cleaning baskets for small components.

# **TOPMESH 3**

In comparison with TOPMESH 2, this laminate features an additional bonded layer between the filter mesh and the square weave support mesh. Constant low flow resistance and good backwashing capabilities enable higher pressure loads to be handled. TOPMESH 3 is particularly suitable for use with CIP (Cleaning In Place) filters.



#### **Application recommendations**

As TOPMESH 2 as well as for sturdy aeration filters, Nutsche filter floors, spray driers, drying plant, container baskets for cleaning plant and filter drums for coolant lubrication equipment.

#### Layer build-up

- Filtrationlayer, defines the filter fineness
- Inner support mesh (TOPMESH 3)
- Outer support mesh

#### **Geometric pore size** 10–500 microns

10-500 microns

#### Thickness

0.7–2mm

### POREFLO

POREFLO is a two or three layer mesh featuring offset layers of twilled wire cloth. The resultant thickening of the surface changes the composite mesh into a highly stable, air permeable metallic membrane with reduced porosity. POREFLO is particularly suitable for applications where high levels of flow resistance are required.







#### **Application recommendations**

Fluidisation elements, fluidised bed floors, aeration elements, pneumatic conveyor troughs, silo applications

#### Layer build-up

- Protective layer / Distribution layer
- Distributor layer
- Support layer

Thickness 0.85–1.60mm

11 •

### **BOPP** – our expanded range of services

BOPP is not only a world leader in outstanding composite meshes but also specialises in further processing these meshes. Our comprehensive selection of plant and equipment enables us to process composite meshes into semi-finished goods, produced to individual customer specifications.

#### Engineering

We are pleased to support you in choosing the correct mesh specification in terms of flow values, material properties, geometric form and component layout with:

- Demand analyses
- Materialisation recommendations
- Design suggestions
- Design drawings
- Cost calculations

**Fabrications** 

angularity

Stamping

Laser cutting

Production technology

We fabricate our meshes into semi-

and also into complete assemblies to

• Precision cutting – perfect cut edges and

• Forming, bending, deep drawing, edging • Welding, soldering, annealing, tensioning

finished goods and finished goods

customer requirements using:

• Building prototypes, one-offs

• Automated mass production

Process oriented packaging



#### **Moulded Parts**

For example:

- Filter frames
- Filter candles
- Star filters
- Discs
- Pleated filters And many more

#### Coatings

on the aperture size.

- Chemically resistant
- UV resistant



#### **Thermal Treatment**

Using a variety of treatments, the mechanical properties of materials such as hardness, elasticity and plasticity can be matched to further processing requirements.

- Workability optimisation
- Variable hardness and plasticity
- Elimination of loose wires on DKS meshes
- Stress relief annealing





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On request, we can fabricate our meshes into moulded parts to your individual specifications.

> Hydrophobic, hydrophilic, grey scale to black or inscribed, our coatings add so much more to your filter meshes without having any detrimental effect

• Applied to selected areas of the mesh

Temperature resistance from -50°C to 200°C

#### Partnering

In partnership with renowned companies across the globe, we can also offer additional fabrication and processing capabilities for tasks including:

- Component assemblies
- And many more

#### **Quality Control, Measuring**

- Customer-specific quality control processes
- Issue of measuring protocols
- Certification, attestations
- Flow measurement
- Glass bead testing
- Bubble point testing

### Your individual solution – our strong point

At BOPP, we focus closely on each individual application. And as no one application is the same as another, we are happy to develop and manufacture composite meshes to meet your bespoke requirements.

Sometimes, even the five layers in our standard product range are not enough to withstand the high mechanical loads of your operating environment. No problem – our composite meshes can be further enhanced with the use of additional support layers. **Seven and ten layer meshes** with thicknesses from three to five millimetres have proved especially effective. For optimum performance, the support layers are arranged at 90° angles to each other.



- One application example can be found in testing aerodynamic performance of vehicles in wind tunnels. The resulting border vortex which does not occur under normal driving conditions is sucked away by reinforced composite mesh plates which can withstand the weight of the vehicle.
- BOPP has already successfully manufactured many sintered assemblies comprising hundreds of layers of mesh for the construction of experimental Stirling engines. These allow efficiency values to be enhanced significantly due to the reduced heat absorption/output.
- Customers in the chemical and pharmaceutical industries rely on double-sided sintered solutions, where the layer stack and the support layers feature a filter layer on both sides. This facilitates filtration in both directions of flow.





# **Composite-PLUS**

In 2021, we brought to market a further development of our most advanced filter mesh – Betamesh-PLUS. These exceptional filter meshes can now be integrated as filter layers in composite meshes and can be ordered under the name Composite-PLUS. Benefit from a range of innovative features.





With specifications down to an aperture size of just five microns alongside high flow rates, previously unachievable filtration results are now possible using multi-layer composite meshes POREMET, ABSOLTA and TOPMESH 2 & 3.

#### The filter layers

For our Composite-PLUS we have replaced the existing filter layers with Betamesh-PLUS meshes. These meshes offer not only additional specifications with geometric pore sizes of 5, 6, 7, 8 and 12 micrometres with excellent flow rates, but also offers a newly staggered optimum grading between the individual specifications.

Thanks to elongated entry apertures with Betamesh-PLUS, filtration takes place at the surface of the mesh. This prevents blockages and allows for good cleaning properties with the filter cake building on the surface of the mesh. This is also valid for POREMET-PLUS and ABSOLTA-PLUS, where the filter layer is integrated at the second level of the mesh.

#### Increase in productivity

Higher flow rates are reflected directly by reduced energy requirements in the filtration process, which not only contribute to an improved environmental balance but also to reduced operational costs.

#### **Reduced space requirements**

In general, for larger filter flows the required component layout is smaller. This saves on installation space as well as material costs.

15 •

### **Technical data Composite-Meshes**

Mesh type	Mesh description	Geometric	Thickness	Porosity [%]	A <sub>sk</sub> resp. A <sub>ss</sub>	<b>R<sub>p0,2</sub></b> [N/cm]	Weight [kg/m²]	Specific flow coefficient [EU]
		<b>pore size</b> [µm]			[mm²/cm]			
Poremet	Poremet 2	10	1.7	30	5.5	1080	9.25	4681
	Poremet 5	14	1.7	30	5.5	1080	9.60	4111
	Poremet 10	21	1.7	30	5.5	1080	9.55	2440
	Poremet 15	20	1.7	30	5.5	1080	9.10	1282
	Poremet 20	25	1.7	30	5.5	1080	9.15	1244
	Poremet 30	35	1.7	30	5.5	1080	9.29	1183
	Poremet 40	50	1.7	30	5.5	1080	9.55	1163
	Poremet 50	60	1.7	30	5.5	1080	9.70	1103
	Poremet 60	75	1.7	30	5.5	1080	10.00	1501
	Poremet 75	90	1.7	30	5.5	1080	10.15	1449
Absolta	Absolta 2	10	2.4	55	4.9	780	8.40	4194
	Absolta 5	14	2.4	55	4.9	780	8.75	2749
	Absolta 10	21	2.4	55	4.9	780	8.70	1548
	Absolta 15	20	2.4	55	4.9	780	8.25	546
	Absolta 20	25	2.4	55	4.9	780	8.30	462
	Absolta 30	35	2.4	55	4.9	780	8.44	401
	Absolta 40	50	2.4	55	4.9	780	8.70	280
	Absolta 50	60	2.4	55	4.9	780	8.85	253
	Absolta 60	75	2.4	55	4.9	780	9.15	222
T	Absolta 75	90	2.4	55	4.9	780	9.30	197
Topmesh 3-layer Topmesh	TM3-KT 2	10	2.0	60	3.6	573	6.25	3847
	TM3-KT 5	14	2.0	60	3.6	573	6.60	2528
	TM3-KT 10	21	2.0	60	3.6	573	6.55	1273
	TM3-BM 15	15	2.0	60	3.6	573	6.10	469
	TM3-BM 20	20	2.0	60	3.6	573	6.10	448
	TM3-BM 25	25	2.0	60	3.6	573	6.17	356
	TM3-BM 30	30	2.0	60	3.6	573	6.25	336
	TM3-QM 40	40	2.0	60	3.6	573	5.95	98
	TM3-QM 50	50	2.0	60 60	3.6 3.6	573 573	6.00	72
	TM3-QM 80	80 100	2.0	60	3.6	573	6.05	51
	TM3-QM 100		2.0				6.10	45
	TM3-QM 150	150 200	2.0	60 60	3.6 3.6	573	6.30	38 31
	TM3-QM 200	500	2.0		3.6	573	6.40	
	TM3-QM 500 TM2-KT 2	10	2.0 0.7	60 60	1.3	573 207	7.40 2.45	27 3710
2-layer	TM2-KT 5	14	0.7	60	1.3	207	2.45	2585
z-iayei	TM2-KT 10	21	0.7	60	1.3	207	2.00	1304
	TM2-RM 15	15	0.7	60	1.3	207	2.75	537
	TM2-BM 20	20	0.7	60	1.3	207	2.30	437
	TM2-BM 25	25	0.7	60	1.3	207	2.30	363
	TM2-BM 30	30	0.7	60	1.3	207	2.45	345
	TM2-BM 40	40	0.7	60	1.3	207	2.40	236
	TM2-QM 50	50	0.7	60	1.3	207	2.20	67
	TM2-QM 60	60	0.7	60	1.3	207	2.20	58
	TM2-QM 80	80	0.7	60	1.3	207	2.25	49
	TM2-QM 100	100	0.8	60	1.3	207	2.30	40
	TM2-QM 150	150	0.8	60	1.3	207	2.50	35
	TM2-QM 200	200	1.4	60	1.3	207	2.60	29
	TM2-QM 500	500	1.4	60	1.3	207	3.60	16
Poreflo	Poreflo 303		1.25	14	5.4	1101	8.64	58'092
FOIGIO	Poreflo 304		1.45	18	5.4	1101	9.64	32'010
	Poreflo 305		1.60	19	5.4	1101	9.92	19'709
	Poreflo 206		0.85	12	4.9	1016	5.99	79'718
	Poreflo 207		1.00	18	4.9	1016	6.49	8655
	Poreflo 208		1.05	20	4.9	1016	6.72	4015
			1.20	31	4.9	1016	6.63	768

• Geometric pore size x<sub>seo</sub> Based on characteristic mesh parameters including style of weave, wire diameter and division of calculated value. Describes the diameter of the largest spherical bead capable of passing through the mesh.

• Yield point R<sub>b0.2</sub> Maximum permissible loading on the mesh in warp or weft direction, without significant permanent deformation.

• Ask Actual material cross section on the cut surface of a vertical cut in the warp direction through the mesh. This material cross sectional area transmits the tensile forces in the warp direction.

• Ass Actual material cross section on the cut surface of a vertical cut in the weft direction through the mesh. This material cross sectional area transmits the tensile forces in the weft direction.

• Porosity Proportion of the open area of the mesh to the given total volume of the mesh. The total volume is defined by the external dimensions length, width and thickness.

• A<sub>orel</sub> Theoretical free flow area, through which the filtrate can pass, in relation to the flow surface.

• Eu Dimensionless property (Euler's number) to assess the relationship of the pressure to the inertial forces of each respective mesh specification. Higher values denote higher pressure differential values under the same conditions (Air, 20 m/min, 20 °C). The values are merely intended to compare the meshes in terms of flow resistance.

• We reserve the right to make technical changes. The latest data can be found on our website.

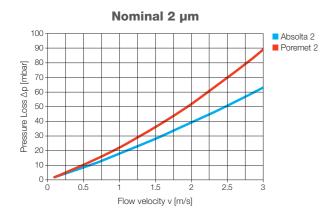
• On request, bespoke meshes can be manufactured to individual customer specifications in all formats.

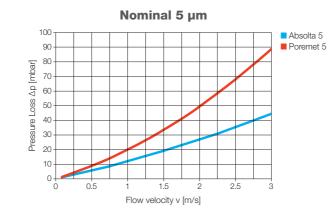
# **Technical data Composite-PLUS**

Mesh type	Mesh description	Geometric pore size [µm]	Thickness [mm]	Porosity [%]	A <sub>sK</sub> resp. A <sub>ss</sub> [mm²/cm]	<b>R<sub>p0,2</sub></b> [N/cm]	Weight [kg/m²]	Specific flo coefficien [EU]
Poremet-PLUS	Poremet-PLUS 5	5	1.7	30	5.5	1080	9.05	
Foremet-FL03	Poremet-PLUS 6	6	1.7	30	5.5	1080	9.05	
	Poremet-PLUS 7	7	1.7	30	5.5	1080	9.05	
	Poremet-PLUS 8	8	1.7	30	5.5	1080	9.10	
	Poremet-PLUS 10	10	1.7	30	5.5	1080	9.10	
	Poremet-PLUS 12	12	1.7	30	5.5	1080	9.10	
	Poremet-PLUS 15	15	1.7	30	5.5	1080	9.10	
	Poremet-PLUS 20	20	1.7	30	5.5	1080	9.10	
	Poremet-PLUS 25	25	1.7	30	5.5	1080	9.25	
	Poremet-PLUS 30	30	1.7	30	5.5	1080	9.40	
	Poremet-PLUS 35	35	1.7	30	5.5	1080	9.55	
	Poremet-PLUS 40	40	1.7	30	5.5	1080	9.33	
	Poremet-PLUS 50	50	1.7	30	5.5	1080	10.00	
	Poremet-PLUS 70	70	1.7	30	5.5	1080	10.00	
Abcolta DLLIS	Absolta-PLUS 5	5	2.4	55	4.9	780	8.20	
Absolta-PLUS	Absolta-PLUS 6	6	2.4	55	4.9	780	8.20	
	Absolta-PLUS 7	7	2.4	55	4.9	780	8.20	
	Absolta-PLUS 8	8	2.4	55	4.9	780	8.25	
	Absolta-PLUS 10	10	2.4	55	4.9	780	8.25	
	Absolta-PLUS 10	12	2.4	55	4.9	780	8.25	
	Absolta-PLUS 12	15	2.4	55	4.9	780	8.25	
	Absolta-PLUS 13	20	2.4	55	4.9	780	8.25	
	Absolta-PLUS 25	25	2.4	55	4.9	780	8.40	
	Absolta-PLUS 30	30	2.4	55	4.9	780	8.55	
	Absolta-PLUS 35	35	2.4	55	4.9	780	8.70	
	Absolta-PLUS 40	40	2.4	55	4.9	780	8.85	
	Absolta-PLUS 40	50	2.4	55	4.9	780	9.15	
	Absolta-PLUS 70	70	2.4	55	4.9	780	9.15	
Topmesh-PLUS	TM3-PLUS 5	5	2.4	60	4.9	573	6.05	
3-layer	TM3-PLUS 6	6	2.0	60	3.6	573	6.05	
3-layer	TM3-PLUS 7	7	2.0			573		
	TM3-PLUS 7	8		60	3.6	573	6.05	
	TM3-PLUS 10	10	2.0 2.0	60 60	3.6		6.10	
					3.6	573	6.10	
	TM3-PLUS 12 TM3-PLUS 15	12 15	2.0 2.0	60	3.6	573	6.10	
	TM3-PLUS 15	20	2.0	60 60	3.6	573 573	6.10	
	TM3-PLUS 25	20	2.0	60	3.6 3.6	573	6.10 6.25	
	TM3-PLUS 30	30	2.0	60		573	6.40	
		35			3.6			
	TM3-PLUS 35		2.0	60	3.6	573	6.55	
Tanmach DI LIC	TM3-PLUS 40	40 5	2.0	60	3.6	573	6.70	
Topmesh-PLUS	TM2-PLUS 5	6	0.7	60	1.3	207	2.25	
2-layer	TM2-PLUS 6	7	0.7	60 60	1.3	207	2.25	
	TM2-PLUS 7				1.3	207	2.25	
	TM2-PLUS 8	8	0.7	60	1.3	207	2.30	
	TM2-PLUS 10	10	0.7	60	1.3	207	2.30	
	TM2-PLUS 12	12	0.7	60	1.3	207	2.30	
	TM2-PLUS 15	15	0.7	60	1.3	207	2.30	
	TM2-PLUS 20	20	0.7	60	1.3	207	2.30	
	TM2-PLUS 25	25	0.7	60	1.3	207	2.45	
	TM2-PLUS 30	30	0.7	60	1.3	207	2.60	
	TM2-PLUS 35	35	0.7	60	1.3	207	2.75	
	TM2-PLUS 40	40	0.7	60	1.3	207	2.90	

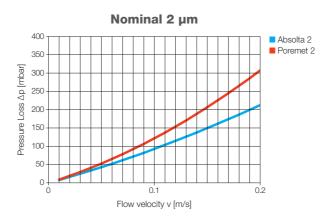


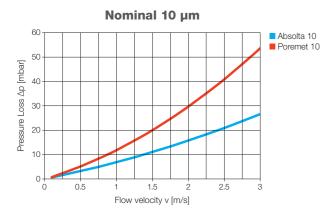
# **Composite meshes – pressure drop air flow**

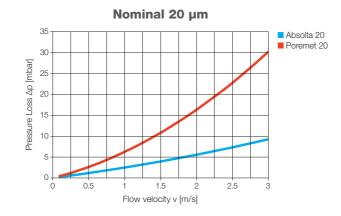


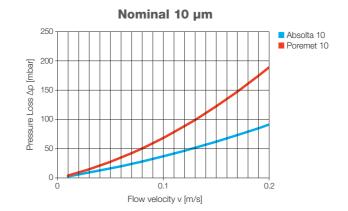


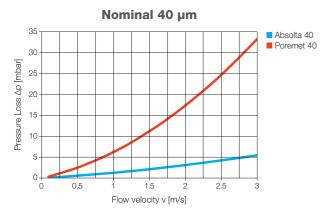
# **Composite meshes – pressure drop water flow**





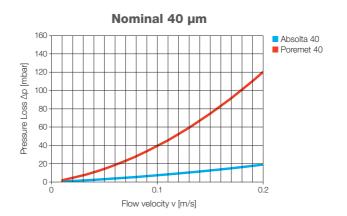






#### Composite meshes in air flow

- The pressure drop curves depicted cover the most current specifications. Pressure drop curves for other standard specifications are available on request.
- The pressure drop values shown are the result of Rayl measurements under laboratory conditions using calibrated equipment. Depending on design, variations are possible. The table values serve as a tool to help with selection. Any liability is excluded. We recommend further clarifications for technical design purposes.

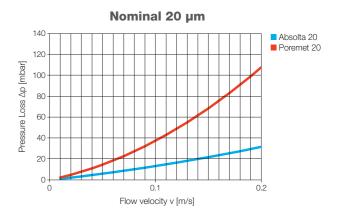


#### Composite meshes in water flow

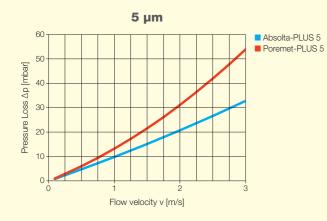
- The pressure drop curves depicted cover the most current specifications. Pressure drop curves for other standard specifications are available on request.
- The pressure drop curves represent calculated pressure drop values for water on the basis of measurements for air assuming laminar and incompressible flows. They are therefore subject to the same qualifications as the diagrams relating to air.

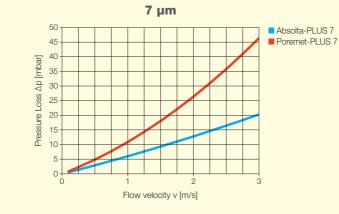




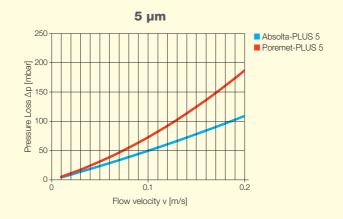


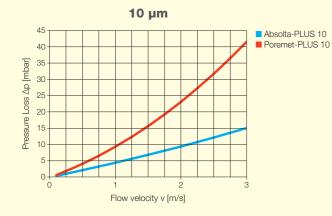
### **Composite-PLUS meshes – pressure drop air flow**

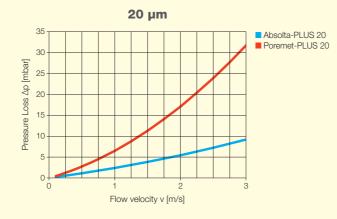


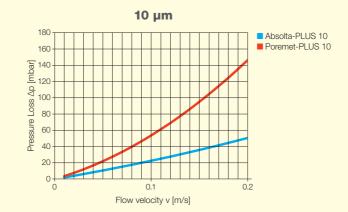


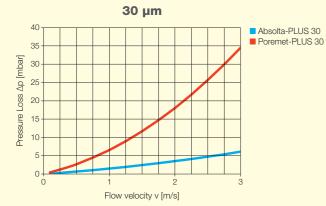
### **Composite-PLUS meshes – pressure drop water flow**

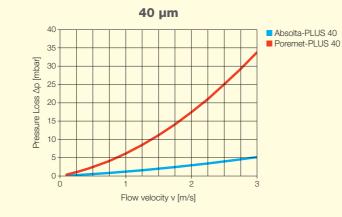


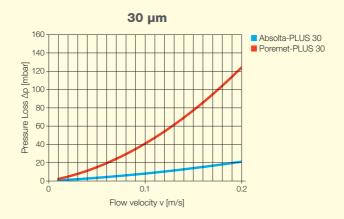












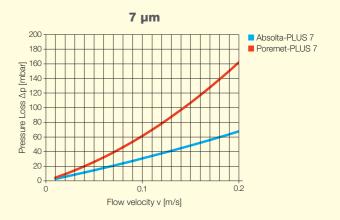
#### Composite-PLUS Air

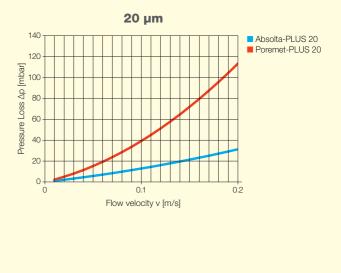
• The pressure drop curves depicted cover the most current specifications. Pressure drop curves for other standard specifications are available on request. • The pressure drop values shown are the result of Rayl measurements under laboratory conditions using calibrated equipment. Depending on design, variations are possible. The table values serve as a tool to help with selection. Any liability is excluded. We recommend further clarifications for technical design purposes.

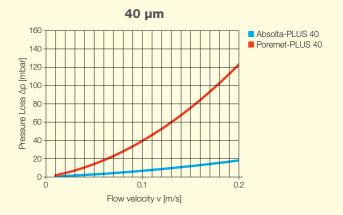
#### **Composite-PLUS water**

- The pressure drop curves depicted cover the most current specifications. Pressure drop curves for other standard specifications are available on request.
- The pressure drop curves represent calculated pressure drop values for water on the basis of measurements for air assuming laminar and incompressible flows. They are therefore subject to the same qualifications as the diagrams relating to air.



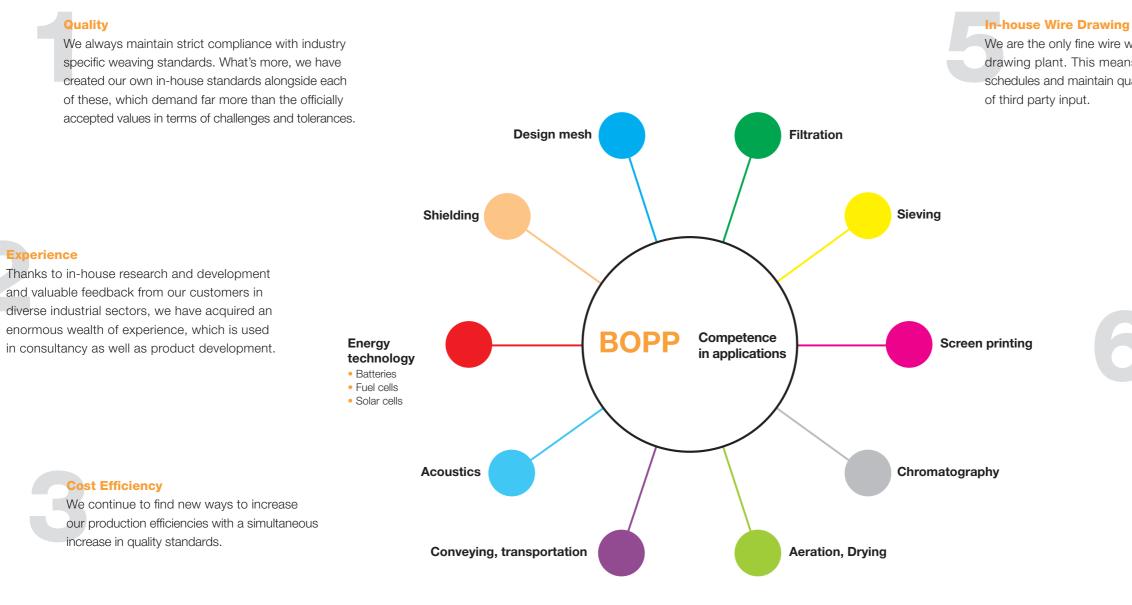






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