



GLASS MICROFIBRE FILTERS – without binders

Recommended filters for controlling both air and water pollution and as a pre-filter for membranes.

- Made of 100 % borosilicate glass fibres without binders.
- Glass fibre filters absorb the finest particles down to 1 µm from liquids, in air and gases, aerosols with even 0.3-0.5 µm are separated.
- The large surface area (about 2 m² / g) provides an outstanding retention capacity.
- Extremely low content in alkali-earth metals.
- Chemical stability: It keeps all its properties in contact with acid solutions (except hydrofluoric acid) and/or basic solutions at moderate concentrations.
- Stability at high temperatures: It keeps its properties up to 500 °C.
- High flow speed and high permeability to air.
- Usable as Pre-filter for membranes to prevent the membranes from silting up.

TECHNICAL SPECIFICATIONS

Grade	Filtration Gurley s	Air permeability ⁽¹⁾ l/m ² s	Weight g/m ²	Thickness mm	Retention rate % (NaCl-particle size <1 µm ⁽²⁾)	Max T ^a °C	Binder
FPGF 50	19	33	56	0.29	99.993	500	free
FPGF 51	44	11	140	1.00	99.993	500	free
FPGF 52	25	54 ⁽²⁾	54	0.28	99.995	500	free
FPGF 53	10	18 ⁽²⁾	120	0.53	99.999	500	free
FPGF 55	67	<10	75	0.40	99.999	500	free

⁽¹⁾ According to DIN 53887

⁽²⁾ Resistance in mbar at 400 cm³/s, A= 10 cm²

⁽³⁾ Tested with Na-Cl particles size <1 µm, maximum at 0.3 to 0.5 µm

APPLICATIONS

Ref. FPGF 50:

- Immission and emission: routine and specialised atmospheric pollution controls.
- Water pollution analysis: For total determination of suspended solids.
- Clearing solvents, buffer solutions and reagents that are used for the application of spectrophotometric techniques.
- Algae and bacteria determination in water and sewage analysis.
- Biochemical issues, like DNA, RNA, proteins, polysaccharides.

Ref. FPGF 51:

- Membrane prefilter to prevent its silting.
- Clearing liquids for later on analysis, using instrumental techniques.
- Concentrated suspended solids quantification, counting the fine particles.
- Biochemical issues, like DNA, RNA, proteins, polysaccharides.

Ref. FPGF 52:

- Determination of suspended solids in drinking water, sewage and industrial waste, based on European regulation UNE EN 872 and/or Standard Methods 2540 D.
- Control and analysis of drinking water or sewage, including processes for clearing aqueous solutions with a low level of fine particles.
- Biochemical tests: analysis of carbohydrates, cell

- cultures, counting scintillation in liquids and links analysis, DNA, RNA, proteins, polysaccharides.
- Protein solutions clearings, prior to freeze-drying.
- Protein precipitates collection, especially in analysis of terminal groups, followed by counting of the scintillation in the filter.
- Cell cultures, for example, in studies on incorporation.
- Collecting fragments of membrane tissue in analysis of receptor links.

Ref. FPGF 53:

- Membrane prefilter: high retention of particles ensures the correct clearing of the sample prior to passing through surface filters (membrane filters).
- Prefiltration in pharmaceutical industry.
- Filtration in food industry.
- Determination of the amount of insoluble contaminants in animal and vegetable fats and oils according to §35 LMBG*.

* German law for food and consumer products

Ref. FPGF 55:

- Sample and solvent filtration for HPLC.
- Biochemical tests: clarification and filtration of proteins, cell cultures, etc.
- Gravimetric analysis pigments.
- Elimination of fine suspended carbon material in liquids to be filtered.
- Electrolytes filtration used in particle size analysis.

NOTES FOR HANDLING:

- Weight consistency: No relevant changes in weight due to variations in the ambient humidity.
- Limited bending resistance. Brushing against other surfaces may cause the loss of fibres (keep the filters in their original box until their use).

ORDERING INFORMATION

Grade	FPGF 50	FPGF 51	FPGF 52	FPGF 53	FPGF 55
Ø					
25 mm	GF50025	GF51025	GF52025	GF53025	GF55025
37 mm	GF50037	GF51037	GF52037	GF53037	GF55037
42.5 mm	GF500425	-	-	-	-
47 mm	GF50047	GF51047	GF52047	GF53047	GF55047
50 mm	GF50050	-	GF52050	-	-
55 mm	GF50055	GF51055	GF52055	GF53055	GF55055
70 mm	GF50070	GF51070	GF52070	GF53070	GF55070
90 mm	GF50090	GF51090	GF52090	GF53090	GF55090
100 mm	GF50100	-	-	-	-
110 mm	GF50110	GF51110	GF52110	GF53110	GF55110
125 mm	GF50125	GF51125	GF52125	GF53125	GF55125
142 mm	-	GF51142	-	GF53142	-
150 mm	GF50150	GF51150	GF52150	GF53150	GF55150
203 x 254 mm	GF50203254	-	GF52203254	-	-

Presentation: 100 units / box

Other sizes available on request.