# BOROSIL® Laboratory Filter Media







# BOROSIL®

# Borosil is India's most trusted laboratory brand



#### SINCE

#### 1962

Borosil is born as a Public Limited Company. The company begins to sell products under the "Borosil" brand.

#### 1963

Corning Glass Works, USA joins Borosil Ltd as a Technical and Financial Collaborator.

#### 2008

Vyline Glassworks sets up a state of the art manufacturing facility for laboratory and consumer glassware. in Bharuch, Gujarat

#### 2013

Vyline sets up a second manufacturing unit for laboratory glassware in Tarapur, Maharashtra.

#### 2015

Borosil launches Labquest - its entry into laboratory instruments.

#### 2016

Borosil acquires controlling interest in Klasspack Pvt Ltd, in Nasik, Maharashtra and enters the pharmaceutical primary packaging market.

#### 2017

Gujarat Borosil produces the world's first fully 2 mm solar glass, facilitating a revolutionary 30% increase in solar module efficiency.

#### 2019

Borosil Technologies Limited with a mandate to research, design, develop laboratory equipment is set up at Pune, India under the brand Labquest.



We are very excited to announce our collaboration with Hahnemühle Fine Art Germany, pioneers of filter papers since 1883.

There are very few companies worldwide that can be proud of such a long history like Hahnemühle.

Borosil's vision is to be the most customer centric company in India.

In keeping with this vision, this strategic partnership is to provide Indian scientists and upcoming intellects with quality filter papers that will aid in producing accurate and consistent results.

Shreevar Kheruka Managing Director

BOROSIL LIMITED



1584	Establishment of Hahnemühle
1883	Filter papers produced for the first time
<u>1927</u> 2004	Hahnemühle was part of the 'Schleich Schuell' group
2004	Pure filter papers are marketed directl the Hahnemühle name

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One of the pioneers in the filter paper industry, Hahnemühle, a company headquartered in Dassel, Germany has been in the filter paper business for more than 130 years. The papers, since then, have been used in a wide range of industries including the food and beverage industry, the pharmaceutical and chemical industry, and agriculture, environmental monitoring and automotive engineering.

The strict QC, stringent parameters and paper specifications that have been persisting since decades, have made the papers gain a reputation of producing reproducible filtration results, thanks to the high batch to batch uniformity.

Hahnemühle has been an official "Brand of the Century" since 2016, and therefore belongs to the exclusive circle of Germany's strongest brands.



We are very excited about our new strategic partnership with Borosil for the APJ market, specifically India, initially.

With Borosil, we have met a very committed team here that is ahead-of-the-curve in the Life Science market, committed, competent and single-minded.

Hence, we together pursue this growth opportunity for both of us, establish high-quality filter papers "Made in Germany" in the Indian market.

We have great confidence in the entire operational and leadership team that together we will provide significant value to the Borosil customers in India to further differentiate Borosil in the Indian market.

Jan Wölfle CFO

Hahnemühle FineArt GmbH

# The benchmark in Filter Papers



Borosil filter papers are made in collaboration with **Hahnemühle** - the pioneers in speciality papers since **1883!** 

The papers contain upto **98% alpha cellulose**, the most stable form of cellulose in paper pulp, hence making the papers highly **stable and durable**. To ensure batch to batch **uniformity and consistency** in filtering performance, no recycled materials are used in the manufacturing processes. Very **low ash content**(Lowest value 0.004%) aid the laboratory professionals in accurate quantitative analysis with minimal errors. **Made in Germany**, the manufacturing processes and product specifications are compliant to the stringent **European QC** standards, guaranteeing the users finest quality filter papers.

Content High purity Qualitative filter papers For qualitative analysis in laboratories.	2 - 5
Ashless Quantitative filter papers Suited for routine routine gravimetric tests and sample preparation for instrumental analyses.	6 - 9
Hardened Quantitative filter papers Specially recommended for filtration applications requiring vacuum and pressure filtration, and for the use of acidic and alkaline solutions.	10 - 13
Glass Fibre Filters 100% micro-borosilicate glass fibres for specific application in environmental analyses	14 - 16
Industrial Applications	17 - 23

# BOROSIL®



# Qualitative Filter Papers

Highly pure filter paper (approx. 0.08% ash) recommended for qualitative analyses in laboratories.





	_					
Made	of super-	. refined	cotton	linters	and	cellulose.
111000	0130001	1011100	0011011	1111015	and	00101050.

Alpha-Cellulose content upto 98%, therefore ensuring high stability and durability of the papers

Very low content of minerals (approx. 0.08% ash)

Ideal for precise identification of materials and for sample preparation prior to sensitive detection methods

#### Specifications

Grade	Sample	Speed	Retention range[µm]*	Filtration Herzberg (s)	Thickness (mm)	Weight [g/m²]
B59501	Medium fine precipitates	Medium fast, thin	4 – 7	160	0.15	68
B59702	Medium-fine, crystalline precipitates	Medium fast	4 – 7	155	0.18	85
B59303	Fine precipitates	Medium slow	2 – 5	450	0.17	84
B60404	Coarse precipitates	Fast	12 – 25	50	0.19	79

\* Approximate values, \*\* Measured with 100mm water column instead of 50 mm

# Applications

#### Grade B59501

- For medium-fine, crystalline precipitates
- For determining the overall fat content of food products
- Determination of the unsaponifiable fraction in fats and oils
- Digestion of solids with aqua regia
- Sample preparation for analysis of beer/malt and beer based beverages.
- Particle separation in Juices, Wine
- Qualitative analysis of milk and milk products.
- Sample preparation for water analysis

#### Grade B59702

- For medium-fine, crystalline precipitates, Calcium oxalate, metal sulphide
- Determination of the coagulable proteins in beer, malt industries
- Determination of the grade of fermentation in beer, malt, beer based beverages.
- Determination of the unsaponifiable fraction in fats in edible oils and fat industries.
- Determination of the fat content of food, milk and dairy products
- Preparation of samples and removal of CO<sub>2</sub> in the beverage industry
- Particle separation in Juices, Wine

#### Grade B59303

- For fine crystalline precipitates
- Identification of Barium sulphate, tin sulphide
- Soil analysis
- Particle separation in Juices, Wine

# 

#### Grade B60404

- For coarse crystalline precipitates
- Sodium chloride in foodstuffs, ferrous hydroxide, aluminium hydroxide and metal sulphide analysis
- Routine cleaning of organic extracts and biological fluids
- Qualitative analysis of milk and milk products
- High flow rates in air pollution monitoring and exhaust fumes detection
- Particle separation in Juices, Wine and other beverages

#### Ordering Information

Grade name         Size (dia in mm)           B59501         70           B59501         90           B59501         110	Pack size           100           100           100           100           100           100	Product code           FPB595010070           FPB595010090           FPB595010110
B59501 90	100	FPB595010090
	100	
B59501 110		FPB595010110
	100	
B59501 125	100	FPB595010125
B59501 150	100	FPB595010150
B59501 185	100	FPB595010185
B59501 240	100	FPB595010240
B59702 70	100	FPB597020070
B59702 90	100	FPB597020090
B59702 110	100	FPB597020110
B59702 125	100	FPB597020125
B59702 150	100	FPB597020150
B59303 70	100	FPB593030070
B59303 90	100	FPB593030090
B59303 110	100	FPB593030110
B59303 125	100	FPB593030125
B59303 150	100	FPB593030150
B60404 47	100	FPB604040047
B60404 55	100	FPB604040055
B60404 70	100	FPB604040070
B60404 90	100	FPB604040090
B60404 110	100	FPB604040110
B60404 125	100	FPB604040125
B60404 150	100	FPB604040150
B60404 185	100	FPB604040185
B60404 240	100	FPB604040240
B60404 320	100	FPB604040320

#### Filter paper **SHEETS**

Grade name	Size (in cm)	Pack size	Product code
B59501	46*57	100	FPB595014657
B59702	46*57	100	FPB597024657
B59303	46*57	100	FPB593034657
B60404	46*57	100	FPB604044657

# BOROSIL®



# Ashless Quantitative

Filter Papers

Ashless filters (avg ash content 0.004 %) for quantitative analysis, routine gravimetric tests and sample preparation for instrumental analyses.





Made of super - refined cotton linters and celluose

Average ash content 0.004%

Acid-washed and rinsed with water to neutralise it

Free of minerals and metallic ions, hence ideal for the detection of metallic ions

#### Specifications

Grade	Sample	Speed	Retention range[µm]*	Filtration Herzberg (s)	Thickness (mm)	Weight [g/m²]
B58940	Fine crystalline precipitates	Medium fast, thin	2 - 4	450	0.17	84
B58941	Coarse and gelatinous precipitates	Medium fast	12 - 25	50	0.19	79
B58942	Very fine crystalline precipitates	Medium slow	<2	750**	0.16	84
B58943	Coarse precipitates	Fast	4 - 12	140	0.18	85
B58944	Fine crystalline precipitates	Slow thin	2	900	0.15	74

# Applications

Grade B58940

- For fine crystalline precipitates
- Determination of sulfates, carbonates and organic materials
- Analysis of oil/fats in edible oil and fat industries.
- Measurement of trace elements in soil and fertilizers.
- Measurement of nitrogen in soil and fertilizers testing.
- Determination of free amino acids and total amino acids in soil and fertilizers.
- Determination of K and P in soil and fertilizers
- Gravimetric analysis of meat and meat products, chemicals, pharmaceuticals, animal feed and in Oil refineries.
- Measurement of non metallic inorganic compounds in water analysis

#### Grade B58942

- For very fine crystalline precipitates
- Analyses of oil/fats: proportion of soluble contaminants
- Determination of chemical elements, radioactive trace elements in water used for the beverage industry.
- Measurement of trace elements, free amino acids, total amino acid in soil and fertilizers.
- Measurement of soluble sulphate in soil and fertilizers.
- Determination of K and P in soil and fertilizers
- Measurement of non metallic inorganic compounds in water analysis
- Gravimetric analysis of chemicals, pharmaceuticals, milk and milk products, , eat and meat products

#### Grade B58941



- Fast filtration for coarse and gelatinous precipitates.
- Gravimetric analysis in sugar, milk and milk products, meat and meat products, animal feed products, chemicals
- Total dry/ash residue in samples
- For food analysis
- Blaine test in cement
- Analysis of beverages.
- Preparing fruit juice samples for photometric measurements (e.g. phosphate)
- Determination of solids and turbidity (Feld method) in beer, malt, beer based beverages.
- Determination of proteins in wort and beer via MgSO₄ precipitation.
- Analysis of ash content in foodstuffs.
- Measurement of trace elements in soil and fertilizers.
- Determination of K and P in soil and fertilizers.
- Measurement of non metallic inorganic compounds in water analysis

#### B58943

- Medium-fast filtration for coarse precipitates
- For food analysis
- Determination of proteins in wort and beer via MgSO<sub>4</sub> precipitation
- Analysis of alkaline earth carbonates and galvanic baths
- Blaine test of cement
- Analysis of beverages: determination of nitrogen compounds by phosphor molybdenum and carbohydrates by hydrolysis
- Measurement of trace elements, free amino acids, total amino acid in soil and fertilizers.
- Determination of K and P in soil and fertilizers
- Gravimetric analysis of animal feed, chemicals, pharmaceuticals, milk and milk products, sugar, meat and meat products

#### Grade B58944

- For fine crystalline precipitates.
- Analysis of CaC<sub>2</sub>O<sub>4</sub>, PbSO<sub>4</sub>, BaSO<sub>4</sub> (hot-felled precipitates)
- Measurement of trace elements in soil and fertilizers.
- Determination of K and P in soil and fertilizers
- Gravimetric analysis of chemicals, pharmaceuticals, animal feed

#### Ordering Information

Grade name	Size (dia in mm)	Pack size	Product code
B58940	70	100	FPB589400070
B58940	90	100	FPB589400090
B58940	110	100	FPB589400110
B58940	125	100	FPB589400125
B58940	150	100	FPB589400150
B58940	185	100	FPB589400185
B58940	240	100	FPB589400240
B58941	70	100	FPB589410070
B58941	90	100	FPB589410090
B58941	110	100	FPB589410110
B58941	125	100	FPB589410125
B58941	150	100	FPB589410150
B58941	185	100	FPB589410185
B58942	55	100	FPB589420055
B58942	70	100	FPB589420070
B58942	90	100	FPB589420090
B58942	110	100	FPB589420110
B58942	125	100	FPB589420125
B58943	12.7	1000	FPB589430012
B58943	125	100	FPB589430125
B58944	90	100	FPB589440090
B58944	110	100	FPB589440110
B58944	125	100	FPB589440125
B58944	150	100	FPB589440150
B58944	185	100	FPB589440185

#### Filter paper **SHEETS**

Grade name	Size ( in cm)	Pack size	Product code
B58940	46*57	100	FPB589404657
B58941	46*57	100	FPB589414657

# BOROSIL®

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BOROSIL Laboratory Filter Media	
BOROSIL Laboratory Filter Media	
BOROSIL <sup>®</sup> Laboratory Filter Media	
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# Hardened Ashless

Filter Papers for quantitative analysis :

Hardened ashless filters (ash content approx. 0.003%), especially recommended for filtration applications requiring vacuum and pressure filtration, and for the use of acidic and alkaline solutions.





Made of super-refined cotton linters and cellulose

Acid-washed and free of minerals and metallic ions, ideal for the detection of metallic ions

Very high wet strength; easy to scrap off or wash off precipitates

Hardened by small quantities of nitrogen-containing resin, which does not introduce significant impurities into the filtrate

High resistance to aggressive chemical components, like sulphuric and nitric acids (up to 40 % at 50 ° Celsius) and alkalis (up to 10 % at 20 ° Celsius)

For analytical applications, routine quantitative and / or gravimetric procedures

#### **Specifications**

Grade	Sample	Speed	Retention range [µm]*	Filtration Herzberg (s)	Thickness (mm)	Weight [g/m²]
B15540	Fine crystalline precipitates	Medium fast, thin	4 - 12	170	0.16	90
B15542	Very fine crystalline precipitates	Slow	≤ 2	600**	0.14	90

\* Approximate values, \*\* Measured with 100mm water column instead of 50 mm

# Applications

#### Grade B15540

- For fine crystalline precipitates
- Gravimetric determination of metals in acidic/alkaline solutions, quality control of chemicals.

Gravimetric analysis in oil refinery

#### Grade B15542

- For very fine crystalline precipitates
- Gravimetric analyses of fine metals: barium and lead sulphate, nickel and tin sulphide, oxalate and calcium fluoride
- Gravimetric analysis in oil refinery



#### Ordering Information

Grade name	Size (dia in mm)	Pack size	Product code
B15540	125	100	FPB155400125
B15540	150	100	FPB155400150
B15542	125	100	FPB155420125
B15542	150	100	FPB155420150







# Glass Fiber

100% micro borosilicate glass fibres for specific applications in environmental analysis





   	Made of 100% micro-borosilicate glass fibres
	Chemically stable in acidic solutions (except hydrofluoric acid) and alkaline solutions in moderate concentrations Extremely low metal content
   	Maintains its properties up to 500°C
 	High flow speed and high permeability to air

#### Specifications

Туре	Air permeability* (Resistance** mbar) [L/m2s]	Retention rate % NaCI-particle size <1µm***	Gurley	Weight [g/m²]	Thickness (mm)	Max T[°C]	Retention range[µm]#
BGF50A	25	99.97	19	56	0.29	500	1-3
BGF52C	54**	99.995	25	54	0.28	500	1-3

\* as per DIN 53887 \*\* Air resistance at 400cm3/s, A = 10cm2 \*\*\* Tested with NaCl particles size <1 μm, main fraction at 0.3 to 0.5 μm #Retention range are approximate values.



# **Applications**

- Water pollution analysis: Determination of suspended particles
- Biochemical issues like DNA, RNA, proteins and polysaccharides
- Determination of suspended particles (SPM and TSP)
- Cleaning and buffering solutions and reagents for spectrophotometric measurements
- Measurement of nitrogen (gravimetrically) in emission analysis
- Measurement of metals, inorganic lead in emission control analysis

#### Ordering Specification

Grade	Size	Pack Size	Product Code
BGF50A	47mm diameter	100	FPBGF50A0047
BGF50A	203*254mm sheet (8*10 inches)	100	FPBGF50A203254
BGF52C	47mm diameter	100	FPBGF52C0047
BGF52C	125mm diameter	100	FPBGF52C0125

# Industrial Applications









# Agriculture

The optimum quality of the soil, fertilizers and animal feed is crucial for the appropriate growth and nutrition of plants and animals. The determination and quantification of nutrients and trace elements hence becomes very critical. The average ash content of BOROSIL quantitative papers therefore make way for accurate, reproducible, error-free results.

Target applications include :

- Analysis of nutrients, mineral nutrients, contaminants and microbiological purity
- Ideal for the detection of trace elements like Mg, Mn, Zn, Co, Cu, Mo, and B

Used in the analysis of :

- Soil and Fertilizers
- Animal feed





	Parameter / Process	Type of Filter	Filter Grade
Soil and fertilizers	Measurement of nitrogen	Measurement of nitrogen	B58940
	Measurement of trace elements	Filter paper for quantitative analysis, ash-free	B58941, B58943, B58942, B58944, B58940
	Free amino acids and total amino acids	Filter paper for quantitative analysis, ash-free	B58943, B58940
	Measurement of soluble sulphates water extraction	Filter paper for quantitative analysis, ash-free	B58942
	Determination of K and P	Filter paper for quantitative analysis, ash-free	B58941, B58943, B58942, B58944, B58940
	Measurement of solids in suspension	Glass microfibre filters	BGF52C
Animal feed	Gravimetric analysis	Filter paper for quantitative analysis	B58941, B58943, B58942, B58944, B58940
	Measurement of Calcium	Filter paper for quantitative analysis	B58943
	Separation of solids from suspension <sup>s</sup>	Glass microfibre filters	BGF52C





A high quality and pure filter paper is required to simplify and support contaminants-free sampling of air, water etc. BOROSIL filter papers can be confidently used in areas that are subject to strict official requirements like the DIN, EPA, ASTM, etc.

Target applications include:

- Ambient air monitoring
- Determination of suspended particles and total suspended particles in air.
- Monitoring the presence of pollutants in the air at different measuring points.
- Monitoring of anthropogenic atmospheric emissions (oil refineries, power stations, burning of liquid and solid fuels, cement factories, mining industries, incinerators, iron foundries, grinderies, asphalt plants, glass makers, ceramic factories) and at stationary sources.
- Measurement of dust release in workplace and production processes, exhaust fumes from private houses, and newly developed engines (for cars and other vehicles).
- Gravimetric analysis of organic and inorganic contaminants in water and waste water.
- Monitoring microbiological quality of drinking water.
- Determination of total dry residue in water.
- Determination of dissolved organic carbon (DOC) and total organic carbon (TOC) in water.
- Analysis of waste products in the disposal of industrial waste and laboratory waste

#### The papers are used to analyze :

- Air pollution
- Emission control
- Water
- Waste products





	Parameter / Process	Apparatus	Technique	Type of filter	Filter Grade
Air Pollution	Sampling of total suspended particulate matter TSP (Ø >30µm) 1)	High volume capturer		Glass microfibre filters, in line	BGF50A
		Low volume capturer		with US EPA	BGF50A
		Cascade impactor		E	BGF50A
Emission Control	Measurement of nitrogen (gravimetry)	Isokinetic probe with rear filter-holder (up to 500°C)	Filtration, weighing	Glass microfibre filters	BGF50A
	Measurement of inorganic lead	Isokinetic probe with rear filter -holder (up to 500°C)	Atom absorption spectroscopy	Glass microfibre filters	BGF50A
	Measurement of metals	lsokinetic probe with rear filter-holder (up to 500°C)		Glass microfibre filters	BGF50A
	Measurement of deposition of radioactive aerosols	Filtering instrument	Filtration, Scintillation	Glass microfibre filters, retention capability < 1µm	BGF6
	Monitoring the combustion air	Monitoring the combustion air	Filtration, weighing	Glass microfibre filters	BGF8, BGF9
	Monitoring particles in air and gases	Automatic air filter units, air analysers with filter rolls	Filtration, weighing	Glass microfibre filters with high mechanical strength	BGF10
Water	Sample preparation		Clarification	Qualitative filter paper	B59501
	Total dry residue, ash residue		Filtration, weighing	Glass microfibre	BGF6
				Quantitative filter paper	B58941
	Measurement of solids in suspensions after drying at 105°C		Filtration, weighing	Glass microfibre	BGF52C, BGF6
	Measurement of the total remainder after drying at 180°C			Glass microfibre	BGF52C, BGF6
	Measurement of solids and volatiles after incineration at 550°C			Glass microfibre	GF50A
	Colouration, Radioactivity, Measurement ofmetals		Filtration	Glass microfibre	BGF6, BGF50A
	Measurement of total and dissolved organic carbon		Filtration, oxidation	Glass microfibre	BGF6, BGF52C
	Measurement of metals				B58941, B58942
	Measurement of non metallic inorganic compounds		Filtration	Quantitative filter paper	B58941, B58942 B58940
Waste Products	Characterisation of toxic substances		Pressure filtration	Glass microfibre filters	BGF52C

## Chemicals



Quality is the utmost critical parameter for any chemical reagent, chemicals or pharmaceutical substance. The quality of these chemicals define the quality of the end product and hence the overall success for the company. Superior quality products therefore need accurate testing methods with materials that produce precise, error-free and reproducible results.

The quantitative filter papers of BOROSIL are the purest paper in the filter market. The average ash content is between 0.005%, and 0.003%.

Target applications include :

- Filtration before quantitative analysis
- Sample preparation before HPLC
- Microbiological investigations
- Gravimetric measurements of elements and contaminants.
- Determination of grind level in cement.

Used in the analysis:

- Chemicals
- Detergents
- Oil refinery
- Cement
- Metal ores and minerals





	Parameter / Process	Technique	Type of filter	Grade
Quality Control	Gravimetry	Filtration (funnel, Büchner)	Filter paper for quantitative analysis	B58941, B58943, B58942, B58940, B58944
			Hardened filter paper for quantitative analysis	B15540, B15542
	Clarification of samples	Pre-filters for membranes	Glass microfibre filters	BGF9
Cleaning Materials	Gravimetry	Filtration (funnel, Büchner)	Filter paper for quantitative analysis	B58941, B58943, B58942, B58940, B58944
	Determination of tenside content	Filtration (Funnel/Büchner)	Glass microfibre filters	BGF50A
	Separation of solids in suspensions	Filtration (Funnel/Büchner)	Glass microfibre filters	BGF52C
Oil Refinery	Gravimetry	Filtration (funnel/Büchner)	Filter paper for quantitative analysis	B58941, B58943, B58942, B58940, B58944
			Hardened filter papers for quantitative analysis	B15540, B15542
Cement Analysis	Blaine test (grinding fineness of cement)		Filter paper for quantitative analysis	B58941, B58943



### Beverages



To ensure beverages are optimum for consumption in this highly competitive and health conscious world, beverages undergo several QC steps for checking and maintaining appropriate quality of the product.

Target applications include:

- Analysis of ingredients, contaminants and microbiological purity
- Particle separation and clarification before optical measurements
- Sample preparation before sensitive analyses such as HPLC Process filtration
- Measurement of nitrogen compounds, proteins and trace elements in beer, malt and beer based beverages.
- For removing CO2 and turbidities during beer production.

Used in the analysis of:

- Juice
- Wine
- Beer, wine, and beer based beverages





	Parameter / Process	Type of filter	Grade
Juice	Particle separation	Filter paper for qualitative analysis, low ash	B60404, B59702, B59501, B59303
	Preparing fruit juice samples for photometric measurements (e.g. phosphate)	Quantitative filter paper	B58941
	Spectrophotometry clarification of samples	Glass microfibres	BGF6, BGF5
Wine	Particle separation	Filter paper for qualitative analysis	B60404, B59702, B59501, B59303
	Gravimetric analysis	Filter paper for quantitative analysis	B58942
	Sample preparation Pre-filtration	Glass microfibre filters	BGF51B
Beer, malt and beer - based beverages	Removal of CO2 and turbidities from beer, wine and juices	Filter paper for qualitative analysis	B59702
Develuges	Determination of solids in wort (Labor Veritas method)		BGF52C
	Filtration of lees		B59702, BGF52C
	Determination of the coagulateable proteins		B59702
	Determination of the grade of fermentation		B59702
	Sample preparation		B59501
	Determination of solids and turbidity (Feld method)	Filter paper for quantitative analysis	B58941
	Determination of nitrogen compounds by phosphor molybdenum precipitation		B58943
	Determination of carbohydrates by hydrolysis		B58943
	Analysis of ash content in foodstuffs		B58941
	Determination of proteins in wort and beer via MgSO4 precipitation		B58941, B58943
	Drinking water: Determination of chemical elements, radioactive trace elements		B58942



### Food



Knowledge about the components and ingredients in various foodstuffs is extremely essential for consumers.

BOROSIL high purity and low ash filter papers are perfectly suitable and compatible with the food analysis tests, and allow detections of sensitive contaminants and ingredients, hence guaranteeing accurate results

Target applications include:

- Analysis of ingredients, contaminants and microbiological purity
- Analysis of oil and components
- Filtration of various extracts
- Determination of fats, proteins, added sugars in milk and milk products

Used in the analysis of

- Edible oil
- Sugar
- Milk and milk products
- Meat and meat products





	Parameter / Process	Type of filter	Grade
Edible oil and fat	Determination of the unsaponifable fraction in fat	Filter paper for qualitative analysis	B59702, B59501
	Analysis of oil/fats using fat extracting equipment	Filter paper for quantitative analysis	B58940
Sugar	Gravimetric analysis	Filter paper, quantitative analysis	B58941, B58943
	Improvement in filtration-Clarification of samples-Pre filters for membranes	Glass microfiber filters	BGF9
Milk and milk products	Qualitative Analysis	Filter paper for qualitative analysis	B60404, B59501, B59702
	Gravimetric analysis	Filter paper for quantitative analysis	B58941, B58943, B58942
	Measurement of solids in suspensions	Glass microfibre filters	BGF52C
Meat and meat products	Gravimetric analysis	Filter paper for quantitative analysis	B58941, B58943, B58942, B58940



# Pharmaceuticals



Pharmaceutical and Healthcare products require stringent QC and papers that do not interfere with the analysis of substances. The low ash content of BOROSIL quantitative papers ensure error-free results along with consistent filtering performance.

Target applications include :

- Monitoring purity, contamination and inspecting microbiological purity
- Clarification before analysis
- Gravimetric measurements
- Sample preparations before HPLC

Used in :

- Production and analysis of APIs
- Quality control of final drug products, healthcare products
- Analysis of various excipients used during production of healthcare and cosmeceuticals





	Parameter / Process	Technique	Type of filter	Grade
Production and Quality Control	Gravimetry	Filtration (funnel, Büchner)	Filter paper for quantitative analysis	B58941, B58943, B58942, B58940, B58944
	Clarification of samples	Pre-filters for membranes	Pre-filters for membranes	BGF9
Diagnostics	Separation and isolation of DNA, RNA	Filtration (even by centrifuge)	Glass microfibre without binde	BGF50A, BGF51B, BGF52C
	Tests for diseases and allergies etc	Sample device for detection reactions with enzymes, antibodies (impregnation)	Pure, absorptive filter papers, almost no contaminants	B58941, B58943, B58942, B58940, B58944





The benchmark in Filter Papers

BOROSIL	® ■	BC	ROSIL
Certificate of Analy	/sis	Certific	ate of Analysis
This is to certify that the BOROSIL Filter Paper		This is to certify that the BOROSIL Filt	er Paper
Grade	B58942	Grade	B15540
was tested according to valid specification and released.		was tested according to valid spec	ification and released.
By examination offer "DIN 54370:2020-08 Testing of paper and cardboard - determination of the residue on ignition" a value of was determined.	0.004%	By examination after "DIN 54370:20 and cardboard - determination of t on ignition'" a value of was determined.	
This grade thus fulfills the limit value of 0.01% for quantitative f the specification "DIN 53135;1968-06 filter papers for chemica designation, main properties, test methods."		This grade thus fulfills the limit value the specification "DIN 53135:1968-0 designation, main properties, test m	of 0.01% for quantitative filter papers according to 6 Filter papers for chemical analysis- classification, 1ethods."
This certificate was complied via EDP system and is valid with	out signature.	This certificate was complied via ED	P system and is valid without signature.

The average ash content of the Quantitative papers is **0.004%** and that for Hardened Ashless is **0.003%** 











#### **BOROSIL LIMITED**

#### **Registered Office :**

1101, Crescenzo, G-Block, Opp. MCA Club, Bandra Kurla Complex, Bandra (E), Mumbai - 400 051, India T :+91 22 6740 6300 F :+91 22 6740 6514 E : borosil@borosil.com W : www.borosil.com

#### MUMBAI

#### DELHI

#### KOLKATA

T : 022 6740 6400 F : 022 6740 6444

E : mumbaisales@borosil.com

T : 011 41505893 E : delhi@borosil.c

E : delhi@borosil.com F : 044 2822 6014 F : chennai@borosil.com

CHENNAI

 T : 044 2822 6012 / 13
 T : 033 2229 9166

 F : 044 2822 6014
 F : 033 2226 2045

 E : chennai@borosil.com
 E : calcutta@borosil.com

Write to us for export enquiries at **eximbor@borosil.com** 

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