

Pure Chromatography Consumables

Pure flexibility. Pure specialization. Pure convenience.





Pure Consumables More focus on your application

The Pure consumable portfolio offers an unrivaled range of products for any flash, prep HPLC & SFC application. Extra features and tools ensure optimal results even for challenging separations without compromising on convenience.







High Flexibility

Multiple solutions for flash, prep HPLC and prep SFC applications

The wide range of Pure consumables cover any need:

- Flash cartridges
- · Sample loader
- Prep HPLC & SFC columns
- · Glass columns

The consumables are available with numerous stationary phases and dimensions. Furthermore all are compatible with any leading flash, prep HPLC or SFC systems on the market.

Specialized Solutions

Features that go beyond your expectations

Some applications require specialized equipment. Therefore BUCHI offers customized solutions:

- \cdot Glass columns for loading capacities \geq 300 g
- Solid loader equipment resistent up to 50 bar (725 psi)
- 70 mm ID prep HPLC columns
- for large scale purifications
 Prep SFC columns for chiral and achiral applications

Maximum Convenience

Development of a flash method in no time

Valuable tools make the setup of a flash purification run easier and faster:

- The TLC to flash navigator software simplifies method optimization
- Easy selection of a cartridge incl. all run parameters
- Air purge of used cartridges allows proper disposal



Pure Consumables Portfolio



FlashPure

FlashPure cartridges are offered in a wide range of sizes, covering different stationary phases, particle sizes and geometries. This enables the user to choose the flash cartridge which best suits his purification needs.



PrepPure

PrepPure HPLC and SFC columns are filled with high quality silica and enable the performance of high resolution separations. Easy scalability from 4.6 – 70 mm ID and phases for standard and targeted applications make PrepPure the obvious choice for best results.



GlasPure

When a purification has to be scaled up, GlasPure offers maximum flexibility in terms of scale and separation requirements. The glass columns are designed for sample amounts over 300 g and pressure up to 50 bar (725 psi).



Sample Loader

The type of sample loading on a flash cartridge or a prep HPLC column has a big impact on the final purification results. With the Pure sample loading portfolio, the chemist has the choice between several convenient options.



FlashPure For a wide range of flash applications

Choose Your FlashPure Stationary Phase

Ideal conditions for a successful separation result are given when the polarity of the target compound and the phases match. In case of solubility issues of the sample in the starting eluent, solid loading is an option (see page 14).



Simplify method optimization using Pure Navigator software

The Pure Navigator software improves efficiency and productivity by simplifying method optimization and taking the guesswork out of interpreting your TLC runs. The FlashPure TLC plates use the same silica type as the FlashPure EcoFlex cartridges and therefore allow best results for upscaling applications.

TLC Plates

- \cdot FlashPure EcoFlex Silica coated
- \cdot Glass and aluminum backed
- · Fluorescence indicator
- \cdot 20 \times 20 cm size





FlashPure Product overview

	FlashPure EcoFlex			FlashPure Select	
Characteristics					
Silica	•	-	-	•	-
C18	-	•	-	-	•
Amino / Diol	-	-	•	-	-
Particle size [µm]	50	50	50	25	30
Irregular particle geometry	•	-	-	-	-
Spherical particle geometry	-	٠	٠	٠	•
Pore size [Å]	55 – 75	92 – 108	92 – 108	30 – 70	92 – 108
Cartridge size [g]	4 - 5000	4 - 5000	4 - 330	4 - 330	4 - 3000
Luer lock fitting inlet	•	•	•	•	•
Luer slip fitting outlet	•	•	•	•	•
Max. loading capacity [%] (based on silica weight)	10	2.5	5	30	5



PrepPure Highest performance for prep HPLC & SFC applications

Choose Your PrepPure Stationary Phase

The PrepPure portfolio offers a wide range of columns for prep HPLC and prep SFC applications. It covers modified silicas, incl. coated and immobilized polysaccharides with unique selectivities for polar and unpolar and chiral and achiral compounds. For SFC, the portfolio provides the chemist with a number of options for phases and dimensions.

Phase	Remarks
Silica	Most polar phase, typically used for Normal Phase LC and achiral SFC applications
Diol	Polar phase, typically used for Normal Phase LC and achiral SFC applications
2-Ethylpyridin (2-EP)	Polar phase, typically used for achiral SFC applications
Polyethyleneimine (PEI)	Polar phase, typically used for achiral SFC applications
C18	Most unpolar phase, typically used for Reversed Phase LC applications and achiral SFC applications
C18WP	Unpolar phase with large pore diameter, typically used for Reversed Phase LC peptides/ protein applications
C18AQ	Unpolar phase modified by small polar silane which makes the phase water resistant
C4WP	Unpolar phase with large pore diameter, typically used for Reversed Phase LC peptides/protein applications
CBD	Typically used for CBD SFC applications
Immobilized polysaccharides	
iADMPC (Amylose tris-(3,5- dimethylphenylcarbamate))	Typically used for chiral SFC applications
iCDMPC (Cellulose tris-(3,5- dimethylphenylcarbamate))	Typically used for chiral SFC applications
iCDCPC (Cellulose tris-(3,5- dichlorophenylcarbamate))	Typically used for chiral SFC applications
Coated polysaccharides	
cCDMPC (Cellulose tris-(3,5- dimethylphenylcarbamate))	Typically used for chiral SFC applications
cADMPC (Amylose tris-(3,5- dimethylphenylcarbamate))	Typically used for chiral SFC applications
Brush type	
iBT (immobilized brush-type phase)	Typically used for chiral SFC applications



Phase	Particle size (µm)	Particle geometry	Pore size (Å)	Column lengths (mm) Column ID (mm)
Silica	5,10,15	spherical	60	150, 250 4.6 – 70
Diol	5	spherical	100	250, 4.6 – 50
2-Ethylpyridin (2-EP)	5	spherical	100	250, 4.6 – 50
Polyethyleneimine (PEI)	5	spherical	100	250, 4.6 – 50
C18	5,10,15	spherical	100	150, 250 4.6 – 70
C18WP	5,10,15	spherical	300	150, 250 4.6 – 70
C18AQ	5,10,15	spherical	100	150, 250 4.6 – 70
C4WP	5,10,15	spherical	300	150, 250 4.6 – 70
CBD	5	spherical	100	250, 4.6 – 50
Immobilized polysaccharides				
iADMPC (Amylose tris-(3,5- dimethylphenylcarbamate))	5	spherical	1000	250, 4.6 – 50
iCDMPC (Cellulose tris-(3,5- dimethylphenylcarbamate))	5	spherical	1000	250, 4.6 – 50
iCDCPC (Cellulose tris-(3,5- dichlorophenylcarbamate))	5	spherical	1000	250, 4.6 – 50
Coated polysaccharides				
cCDMPC (Cellulose tris-(3,5- dimethylphenylcarbamate))	5	spherical	1000	250, 4.6 – 50
cADMPC (Amylose tris-(3,5- dimethylphenylcarbamate))	5	spherical	1000	250, 4.6 – 50
Brush type				
iBT (immobilized brush-type phase)	8	spherical	100	250, 4.6 – 50

More technical information and item numbers available here: <u>https://assets.buchi.com/image/upload/v1645408763/pdf/Technical-Datasheet/</u> <u>TDS_11594044_PrepPure_HPLC_columns.pdf</u>





Flexible dimensions for any sorbent size

Column ID [mm]	Pressure range [bar / psi]	Capacity [g] by length			
		100 mm	230 mm	460 mm	920 mm
15	0 – 50 / 725	9	20	40	80
26	0 - 40 / 580	25	65	130	260
36	0 - 30 / 435	-	115	235	470
49	0 - 20 / 290	-	230	460	920
70	0 – 15 / 218	-	470	940	1800
100	0 – 10 / 145	-	935	1850	3700

Estimated g of silica (40 - 63 µm)

Protect your glass column

Pre-columns minimize dead volumes and enhance the life time of the main column by trapping contaminants.

Size	Pressure range [bar / psi]	Compatibility [mm]
Small	0 – 50 / 725	GlasPure ID 15 – 49
Large	0 – 20 / 290	GlasPure ID 70 – 100

Efficient filling of glass columns

A homogeneouly packed column is essential to obtaining a reliable and reproducible separation. GlasPure filling sets allow packing in a fast, safe and reproducible way.

The dry filling set is ideal for filling glass columns with silica gel using compressed gas. Silica gel in the size range $25 - 200 \,\mu$ m can be packed with this method.

The slurry filling set is used for wet filling and conditioning of glass columns with silica gel particles smaller than 25 $\mu m.$

More technical information and item numbers available here: https://assets.buchi.com/image/upload/v1684765917/pdf/Technical-Datasheet/TDS_11594056_GlasPure.pdf



Sample Loader Convenient choices

Pure Sample Loops

- \cdot Used for liquid loading
- The liquid sample gets injected manually into a loop and from there it's automatically transferred on the column
- · Available loop sizes: 2 mL, 5 mL, 10 mL

Pure Solid Loader

- · Used for external solid loading
- \cdot Loader can be partially filled with the sample
- · Resistant up to 50 bar (725 psi)
- \cdot Connected in front of the cartridge
- · Available loader sizes: S, M





FlashPure EcoFlex Empty Solid Loader

- · Used for external solid loading
- Loader needs to be filled completely with the sample and stationary phase
- · Connected in front of the cartridge
- Available loader sizes: 20 g, 40 g, 80 g, 120 g



Different sample loading techniques

Loading Technique	Purification Method	Procedure	Pros & Cons
Liquid loading is used for samples, which are sufficiently dissolved in the starting eluent (= weak solvent)	Flash Prep HPLC	Liquid sample (mixture of crude sample and solvent) injected via an injection valve or directly on top of the cartridge / column	Fast method but with reduced resolution
Solid loading is used for samples which are only soluble in strong solvents (≠ initial mobile phase) or to improve resolution (less band broadening and tailing effect)	Flash	Solid sample (mixture of crude sample & support material) placed in front of the cartridge	Slower method but enhanced resolution



Why add support material (e.g. silica)?

The crude sample gets absorbed on the silica which allows a better transfer and distribution of the eluted compounds. The sample is also kept in place and made stationary, which is important for work with substances such as oily extracts.



Complete your portfolio



Evaporation

We offer dedicated solutions for laboratory rotary evaporation for R&D or quality control. Based on our experience and knowledge, we offer tailor-made solutions to cover a wide range of distinct needs and achieve highest convenience.

Chromatography

Whatever the complexity or the scale of your purification process is, the BUCHI preparative chromatography systems are designed to fulfill your changing needs. Together with a broad range of high performance flash chromatography columns, we provide you the optimized solution suited to your purification workflow.



Freeze Drying

Our first laboratory Freeze Dryer with Infinite-Technology[™] and Infinite-Control[™]. Applications range from R&D to quality control within a broad spectrum of market segments. Our solutions stand out by their efficiency and practical capability.

Melting Point

To determine your melting and boiling points with high accuracy, visual or automatic determination and optional qualification packages meeting highest regulatory standards.

Core messages to our customers BUCHI creates added value

"Quality in your hands" is the guiding principle that shapes our philosophy and our actions. It challenges us to provide outstanding services that are precisely tailored to your needs. This means that we must stay in close contact with our customers. That is why we keep in touch and continue to work very hard to understand you and your business even better.

We help you by providing high-quality products, systems, solutions, applications and services that offer you added value. This allows you to focus entirely on your processes and your work.



Competent

We have the technological expertise and decades of experience needed to provide competent support and work with you to continually improve our services.



Reliable

We guarantee the quality and functionality of our equipment and will continue to help you quickly and efficiently whenever something does not operate to your satisfaction.



Safe

By collaborating closely with you, we do everything in our power to make our products, systems, solutions, applications and services as safe as possible for people and the environment.



Cost-effective

We strive to create a high level of economic benefit and maximum added value for you.



Easy

We support you by providing carefully designed solutions as well as instruments and systems that are easy to operate.



Global

As an international family-owned business with own subsidiaries and qualified distributors, we have a presence wherever you are located.



Sustainable

We support environmentally friendly processes and manufacture products that have a long service life. We utilize advanced technologies to leave the smallest environmental footprint possible.

We are represented by more than 100 distribution partners worldwide. Find your local representative at:

www.buchi.com

Quality in your hands

