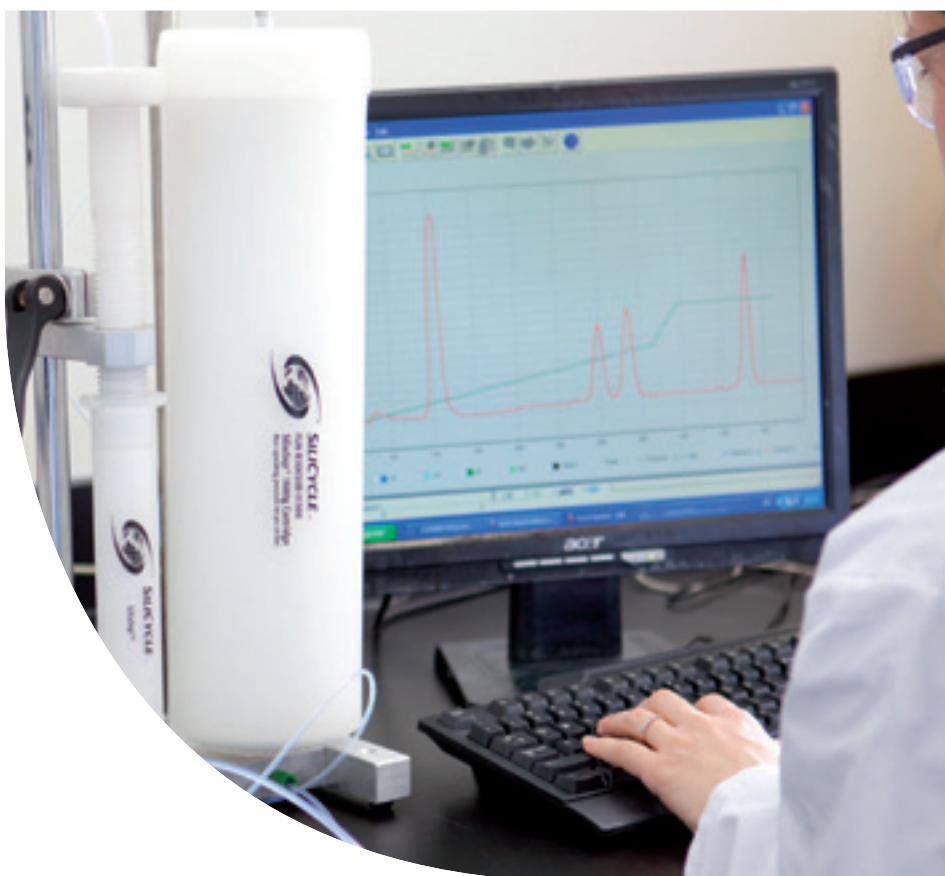




# SiliaSep<sup>TM</sup>

## Flash Cartridges



Distributed by

**Greyhound Chromatography and Allied Chemicals**  
6 Kelvin Park, Birkenhead, Merseyside CH41 1LT United Kingdom  
Tel: +44 (0)151 649 4000 Fax: +44 (0)151 649 4001  
sales@greyhoundchrom.com

[www.greyhoundchrom.com](http://www.greyhoundchrom.com)

# SiliCycle SiliaSep™ Flash Cartridges

SiliCycle is the partner of choice for your flash cartridge needs.

- The use of pre-packed flash cartridges improves purification efficiency by offering superior reproducibility and productivity compared to conventional manual flash chromatography.
- Pre-packed cartridges offer to chromatographers:
  - More tightly packed silica bed
  - Homogeneous packing
  - Better separation



## SiliaSep Flash Cartridges

Today, various manufacturers offer pre-packed flash cartridges, but performance and quality varies. SiliCycle supplies pre-packed columns offered under the brand name of SiliaSep Flash Cartridges.

SiliaSep offers superior performances over competitive cartridges. They are available in two silica gel grades (*40-63 & 15-40 microns*) and with various functionalities (*reversed & normal phases, ion exchangers and metal scavengers*) to meet any purification demand.

## Important Separation Parameters

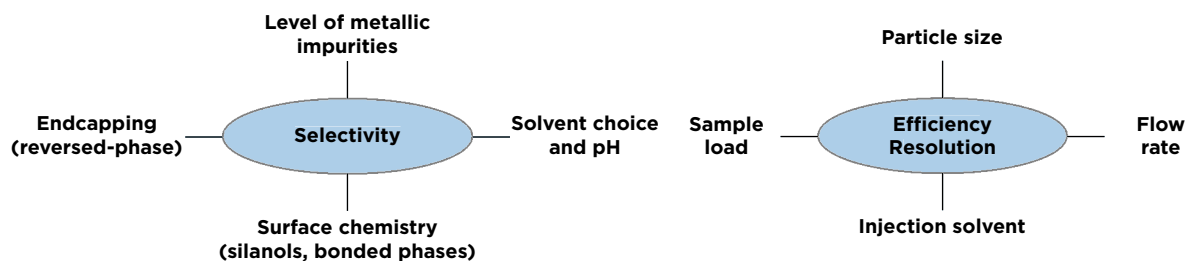
### Selectivity

Selectivity refers to the ability to retain or release certain types of compounds.

### Efficiency & Resolution

The performance of flash cartridges can be measured by different parameters including plate count (N) and symmetry (SI). The higher (N), the better the separation.

## Influencing Factors





## SiliaSep Features & Benefits

\*Speed, Reliability, & Selectivity, with SiliCycle's SiliaSep flash cartridges you will benefit from the same quality that all our products are known for. We have the best silica gel available on the market with no fines. SiliaSep offers:

**\*ALWAYS ASSURED  
WITH SILIASEP FLASH  
CARTRIDGES**

Features & Benefits of SiliaSep	
Features	Benefits
Highest silica gel quality with no fines	No product contamination Homogeneous packing, no channelling ( <i>no peak tailing</i> ) High loading capacity ( <i>high surface area</i> ) Direct transfer from TLC to flash chromatography (same silica)
Innovative packing technology	Consistent packing for reproducible high plate count ( <i>N</i> ) Superior performance & separation Higher resolution with improved band definition ( <i>no tailing</i> ) Greater compound purity & higher recovery
Versatility	Wide choice of cartridge sizes from 4 grams up to 1.5 kg Coming soon: 2.5 kg cartridge Purification scale-up from milligram to hundreds of grams! Variety of sorbents to address any separation need
Reproducibility, reliability & safety	Leak-free guaranteed by unique one-piece cartridge design Reproducible performance from lot-to-lot ( <i>stringent quality control</i> ) Excellent durability to withstand high pressures Universal luer fittings for compatibility with any flash systems
Cost effective	Excellent ratio performance vs price Readily available from stock inventory for many volumes

## SiliaSep Flash Cartridge Design

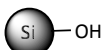
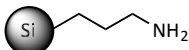
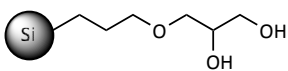
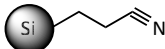
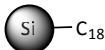


## SiliaSep Portfolio Overview

### SiliaSep Sorbents for Non-Ionic Compounds

NEED ANOTHER  
SORBENT?  
CONTACT US!

SiliaSep Sorbents for Non-Ionic Compounds Characteristics

Sorbent	Structure	Characteristics	Typical Applications	Storage Conditions* (Never dry out)
Silica R10030B		Part. size: 40 - 63 µm	Most popular sorbent for day-to-day use for the purification of non-ionic polar organic compounds	Single use recommended.
Silica HP R10017B		Part. size: 15 - 40 µm	High performance sorbent for difficult separations ( <i>isomers</i> ). Higher loading capacity. Faster flow rate. Less solvent used.	Single use recommended.
Amine R52030B		Part. size: 40 - 63 µm Endcapping: Yes %N: ≥ 1.68%	Good alternative for normal phase purification of compounds with basic properties, which would normally have to be purified by reversed phase. Note: imine formation can be seen with the purification of aldehydes and ketones.	Flush the cartridge 3x with: - 80% acetonitrile in water
Diol R35030B		Part. size: 40 - 63 µm Endcapping: Yes %C: ≥ 6.98%	Good alternative for difficult separation of low to medium polarity samples. Offers a better retention time compared to normal phase. Note: nucleophilic addition reactions can be seen with the purification of ketones and amines (1° and 2°).	Flush the cartridge 3x with: - 80% acetonitrile in water
Cyano R38030B		Part. size: 40 - 63 µm Endcapping: Yes %N: ≥ 1.93%	Versatile sorbent that can be used either as normal or reversed phase. Indicated for products with intermediate to extreme polarity. The slightly hydrophobic nature of the cyano group offers alternative selectivities.	Flush the cartridge 3x with: - 80% methanol in water or - 80% acetonitrile in water
C18 R33230B		Part. size: 40 - 63 µm Endcapping: Yes %C: 17%	Indicated for the purification of medium to high polarity compounds, SiliaSep C18 are packed with the new generation of SiliaBond C18 monomeric reversed-phase. They provide reproducible purification without the complexity and cost of preparative HPLC.	Flush the cartridge 3x with: - 80% methanol in water or - 80% acetonitrile in water

## SiliaSep Cartridge Types Overview

SiliaSep Cartridges Characteristics

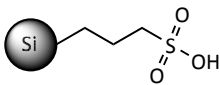
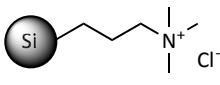
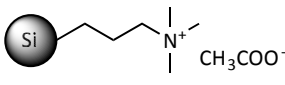
Characteristics	Units	SiliaSep 4 g	SiliaSep 12 g	SiliaSep 25 g	SiliaSep 40 g	SiliaSep 80 g
Cartridge Code	-	ISO04	ISO12	ISO25	ISO40	ISO80
Silica weight	g	Bare: 4 g Bonded: ≥ 5 g	Bare: 12 g Bonded: ≥ 15 g	Bare: 25 g Bonded: ≥ 30 g	Bare: 40 g Bonded: ≥ 40 g	Bare: 80 g Bonded: ≥ 90 g
#/box	unit	Bare: 20 Bonded: 2	Bare: 20 Bonded: 1	Bare: 15 Bonded: 1	Bare: 15 Bonded: 1	Bare: 12 Bonded: 1
Dimension (OD x Length)	mm	16 x 98	25 x 117	25 x 165	32 x 169	36 x 237
Column volume	mL	4.9	17	31	47	123
Recom. flow rate	mL/ min	15 - 25	20 - 40	20 - 45	25 - 50	40 - 80
Loading capacity	g	0.005 - 0.4	0.015 - 1.2	0.025 - 2.5	0.05 - 4.0	0.10 - 8.0

#### How to create product number:

Product Number => FLH - [Chemistry Code] - [Cartridge Code] Ex. cartridge 4 g with silica gel => FLH-R10030B-ISO04



## SiliaSep Sorbents for Ionic Compounds

SiliaSep Sorbents for Ionic Compounds Characteristics			
Sorbent	Structure	Characteristics	Typical Applications ( <i>single use recommended</i> )
SCX-2 <i>nec</i> ( <i>propylsulfonic acid</i> ) R51230B		Part. size: 40 - 63 $\mu\text{m}$ Endcapping: No %S: $\geq 2.35\%$ meq $\geq 0.63$ mmol/g	Packed with the strong cation exchange silica SCX-2, they can be used to fully retain basic compounds for clean-up or to isolate them by a catch and release process.
SAX <i>nec</i> ( <i>TMA Chloride</i> ) R66530B		Part. size: 40 - 63 $\mu\text{m}$ Endcapping: No %N: $\geq 1.42\%$ meq $\geq 0.8$ mmol/g	Packed with the strong anionic exchange silica SAX, they can be used to fully retain acidic compounds for clean-up or to isolate them by a catch and release process.
SAX-2 <i>nec</i> R66430B		Part. size: 40 - 63 $\mu\text{m}$ Endcapping: No %N: $\geq 1.00\%$ meq $\geq 0.5$ mmol/g	Strong anion exchange sorbent with a low selectivity acetate counter ion retains more favorably acidic compounds with pKa's < 5, such as carboxylic acid.

### SiliaSep Cartridges Characteristics

SiliaSep 120 g	SiliaSep 220 g	SiliaSep 330 g	SiliaSep XL 800 g	SiliaSep XL 1600 g	Units	Characteristics
IS120	IS220	IS330	IS750	I1500	-	Cartridge Code
Bare: 120 g Bonded: $\geq 130$ g	Bare: 220 g Bonded: $\geq 230$ g	Bare: 330 g Bonded: $\geq 360$ g	Bare: 800 g Bonded: $\geq 870$ g	Bare: 1,600 g Bonded: $\geq 1,700$ g	g	Silica weight
Bare: 10 Bonded: 1	Bare: 4 Bonded: 1	Bare: 4 Bonded: 1	Bare: 2 Bonded: 1	Bare: 2 Bonded: 1	unit	#/box
42 x 256	66 x 195	66 x 268	89 x 382	120 x 429	mm	Dimension (OD x Length)
190	306	441	1,500	2,900	mL	Column volume
60 - 120	60 - 180	80 - 180	200 - 300	300 - 450	mL/ min	Recom. flow rate
0.15 - 12.0	0.25 - 22.0	0.50 - 33.0	0.80 - 80.0	1.60 - 160.0	g	Loading capacity

## SiliaSep Ordering Information

### SiliaSep Cartridges Ordering Information

SiliaSep Type	SiliaSep 4 g	SiliaSep 12 g	SiliaSep 25 g	SiliaSep 40 g	SiliaSep 80 g
Quantity per box	20 / box	20 / box	15 / box	15 / box	12 / box
SiliaSep Silica	FLH-R10030B-ISO04	FLH-R10030B-ISO12	FLH-R10030B-ISO25	FLH-R10030B-ISO40	FLH-R10030B-ISO80
SiliaSep Silica HP	FLH-R10017B-ISO04	FLH-R10017B-ISO12	FLH-R10017B-ISO25	FLH-R10017B-ISO40	FLH-R10017B-ISO80
Other SiliaSep Phases					
Quantity per box	2 / box	1 / box	1 / box	1 / box	1 / box
SiliaSep Amine	FLH-R52030B-ISO04	FLH-R52030B-ISO12	FLH-R52030B-ISO25	FLH-R52030B-ISO40	FLH-R52030B-ISO80
SiliaSep Diol	FLH-R35030B-ISO04	FLH-R35030B-ISO12	FLH-R35030B-ISO25	FLH-R35030B-ISO40	FLH-R35030B-ISO80
SiliaSep Cyano	FLH-R38030B-ISO04	FLH-R38030B-ISO12	FLH-R38030B-ISO25	FLH-R38030B-ISO40	FLH-R38030B-ISO80
SiliaSep C18 (17%)	FLH-R33230B-ISO04	FLH-R33230B-ISO12	FLH-R33230B-ISO25	FLH-R33230B-ISO40	FLH-R33230B-ISO80
SiliaSep SCX-2	FLH-R51230B-ISO04	FLH-R51230B-ISO12	FLH-R51230B-ISO25	FLH-R51230B-ISO40	FLH-R51230B-ISO80
SiliaSep SAX nec	FLH-R66530B-ISO04	FLH-R66530B-ISO12	FLH-R66530B-ISO25	FLH-R66530B-ISO25	FLH-R66530B-ISO80
SiliaSep SAX-2 nec	FLH-R66430B-ISO04	FLH-R66430B-ISO12	FLH-R66430B-ISO25	FLH-R66430B-ISO25	FLH-R66430B-ISO80

Note: for Metal Scavengers Cartridges, see page 113 for more information.

### SiliaSep Cartridges Ordering Information

SiliaSep Type	SiliaSep 120 g	SiliaSep 220 g	SiliaSep 330 g	SiliaSep XL 800 g	SiliaSep XL 1600 g
Quantity per box	10 / box	4 / box	4 / box	2 / box	2 / box
SiliaSep Silica	FLH-R10030B-IS120	FLH-R10030B-IS220	FLH-R10030B-IS330	FLH-R10030B-IS750	FLH-R10030B-I1500
SiliaSep Silica HP	FLH-R10017B-IS120	FLH-R10017B-IS220	FLH-R10017B-IS330	-	-
Other SiliaSep Phases					
Quantity per box	2 / box	1 / box	1 / box	1 / box	1 / box
SiliaSep Amine	FLH-R52030B-IS120	FLH-R52030B-IS220	FLH-R52030B-IS330	FLH-R52030B-IS750	FLH-R52030B-I1500
SiliaSep Diol	FLH-R35030B-IS120	FLH-R35030B-IS220	FLH-R35030B-IS330	FLH-R35030B-IS750	FLH-R35030B-I1500
SiliaSep Cyano	FLH-R38030B-IS120	FLH-R38030B-IS220	FLH-R38030B-IS330	FLH-R38030B-IS750	FLH-R38030B-I1500
SiliaSep C18 (17%)	FLH-R33230B-IS120	FLH-R33230B-IS220	FLH-R33230B-IS330	FLH-R33230B-IS750	FLH-R33230B-I1500
SiliaSep SCX-2	FLH-R51230B-IS120	FLH-R51230B-IS220	FLH-R51230B-IS330	FLH-R51230B-IS750	FLH-R51230B-I1500
SiliaSep SAX nec	FLH-R66530B-IS120	FLH-R66530B-IS220	FLH-R66530B-IS330	FLH-R66530B-IS750	FLH-R66530B-I1500
SiliaSep SAX-2 nec	FLH-R66430B-IS120	FLH-R66430B-IS220	FLH-R66430B-IS330	FLH-R66430B-IS750	FLH-R66430B-I1500

NEW  
PRODUCT

NEW  
PRODUCT

## SiliaSep Solid-Load Cartridges

Usually, the use of solid-load technique (also called dry-load) will improve chromatography resolution. SiliaSep Solid-Load luer-lok cartridges are designed to be used with SiliaSep flash cartridges for sample loading.

Either SiliaSep pre-packed (for liquid injection, various choices of media available) or empty solid-load (for silica-sample slurry) are available to better suit your needs.



XL Solid-Load Flanges

### SiliaSep Solid-Load Cartridges (Luer-Lok)

Product Number	Sorbent	Weight / Volume	Description	Qty per box
SPL-R10030B-10U	Silica (40 - 63 µm)	2 g / 10 mL	SiliaSep Silica Pre-packed Solid-Load Cartridge, 2 g, 10 mL	20
SPL-R10030B-10X	Silica (40 - 63 µm)	5 g / 10 mL	SiliaSep Silica Pre-packed Solid-Load Cartridge, 5 g, 10 mL	20
SPL-R10030B-60Y	Silica (40 - 63 µm)	10 g / 60 mL	SiliaSep Silica Pre-packed Solid-Load Cartridge, 10 g, 60 mL	16
SPL-R10030B-60K	Silica (40 - 63 µm)	25 g / 60 mL	SiliaSep Silica Pre-packed Solid-Load Cartridge, 25 g, 60 mL	16
SPL-R10030B-065	Silica (40 - 63 µm)	65 g / 150 mL	SiliaSep Silica Pre-packed XL Solid-Load Cartridge, 65 g, 150 mL	12
SPL-R10030B-270	Silica (40 - 63 µm)	270 g / 700 mL	SiliaSep Silica Pre-packed XL Solid-Load Cartridge, 270 g, 700 mL	6
SPL-R52030B-10X	Amine	5 g / 10 mL	SiliaSep Amine Pre-packed Solid-Load Cartridge, 5 g, 10 mL	20
SPL-R52030B-60K	Amine	25 g / 60 mL	SiliaSep Amine Pre-packed Solid-Load Cartridge, 25 g, 60 mL	16
SPL-R35030B-10X	Diol	5 g / 10 mL	SiliaSep Diol Pre-packed Solid-Load Cartridge, 5 g, 10 mL	20
SPL-R35030B-60K	Diol	25 g / 60 mL	SiliaSep Diol Pre-packed Solid-Load Cartridge, 25 g, 60 mL	16
SPL-R38030B-10X	Cyano	5 g / 10 mL	SiliaSep Cyano Pre-packed Solid-Load Cartridge, 5 g, 10 mL	20
SPL-R38030B-60K	Cyano	25 g / 60 mL	SiliaSep Cyano Pre-packed Solid-Load Cartridge, 25 g, 60 mL	16
SPL-R33230B-10X	C18 (17%)	5 g / 10 mL	SiliaSep C18 (17%) Pre-packed Solid-Load Cartridge, 5 g, 10 mL	20
SPL-R33230B-60K	C18 (17%)	25 g / 60 mL	SiliaSep C18 (17%) Pre-packed Solid-Load Cartridge, 25 g, 60 mL	16
SPL-0009-010	Empty	- / 10 mL	SiliaSep Empty Solid-Load Cartridge, 10 mL	100
SPL-0012-060	Empty	- / 60 mL	SiliaSep Empty Solid-Load Cartridge, 60 mL	100
AUT-0090-150	Empty	- / 150 mL	SiliaSep Empty Solid-Load Cartridge, 150 mL	12
AUT-0090-700	Empty	- / 700 mL	SiliaSep Empty Solid-Load Cartridge, 700 mL	6

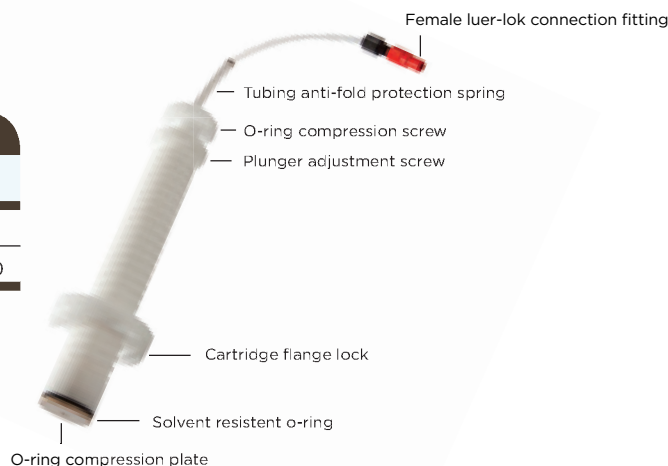
**Note:** for optimal purification performance, solvent removal under vacuum is highly recommended.

## SiliaSep Plungers

### SiliaSep Plungers\*

Product Number	Description
AUT-0060-010	Plunger for 10 mL solid-load cartridge (16 mm)
AUT-0060-060	Plunger for 60 mL solid-load cartridge (27 mm)

\*Ask for SiliaSep Plungers Operating Instructions Guide



## SiliaSep Accessories for System Conversion

SiliCycle's SiliaSep Flash Cartridges are designed to be a universal closed-top flash columns (*luer-lok connection*). Take advantage of SiliaSep's benefits and enhanced performance by converting your system with an inexpensive adaptor today.

SiliCycle manufactures SiliaSep cartridges that will fit perfectly (*no adaptor required*) on the following systems:

- Teledyne Isco™ CombiFlash® (XL) systems
- Varian® (Analogix®) IntelliFlash® & SimpliFlash®
- Interchim PuriFlash™ 430 evo & Spot II (Armen®)
- Büchi Sepacore™
- Grace Revelaris™



## SiliaSep on Biotage™ Instruments

### With Biotage Isolera™ Systems

With Isolera systems, you can directly use SiliaSep without adaptors.

Even if SiliaSep does not have luer-loks at both ends like the SNAP cartridge, you can connect it to your current solvent line (*if you prefer to have both ends with luer fittings, contact us for optional adaptors*).

### With Biotage Horizon™, SP1 & SP4 Systems

**Note:** if you are already using SNAP with your system, no modification is required. See previous point.

With these Biotage's systems, you have two different options:

**Option A:** toggle between Biotage and SiliCycle columns

**Option B:** use only SiliaSep cartridges. No compression module will be necessary from now on.

#### Option A: Using Adaptors

If you are using the Biotage compression modules (*metal cylinders*), simply link your existing solvent line connection to the SiliaSep adaptors.

To do so, attach the Biotage Adaptor Kit (PN: *KAD-1006*) to the existing Swagelock™ stainless steel connectors, which will allow them to connect to SiliCycle SiliaSep columns. This is only if you want to toggle between Biotage and SiliCycle columns.



Biotage Adaptor Kit (2 pieces)  
PN: KAD-1006





### Option B: Changing Solvent Lines

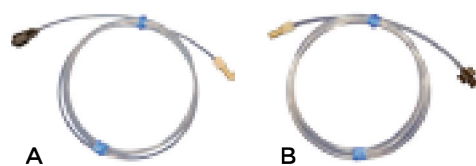
Changing the solvent lines from your current system to a Luer-Lok one will allow direct connection of SiliaSep Flash Cartridges. No compression module will be needed from now on.

To switch completely to the SiliaSep columns, simply unscrew the fittings that are currently installed on the Biotage systems and screw in the SiliaSep Solvent Line Replacement (PN: KAD-1014) with the luer connections we supply.

The female luer (A), which connects to the top of the column, goes onto the flow outlet of the instrument (*top hole on the instrument*).

The male luer (B) fits on top of the slip tip on the bottom of the column and connects to the flow inlet of the instrument (*coming out of the column*).

**Note:** SiliaSep Solid-Load Cartridges and Plungers are SiliCycle's alternative to Biotage's samplet (see page 163).



Biotage Solvent Line Replacement  
PN: KAD-1014

### SiliaSep Support Rings

Support rings will allow SiliaSep cartridges to sit on the Biotage SP1 & SP4 instruments.

SiliaSep Support Rings		
Product Number	Description	Qty per box
AUT-0068-004	Support ring-4 (16 mm)	5
AUT-0068-010	Support ring-12, 25 (25 mm)	5
AUT-0068-040	Support ring-40 (32 mm)	5
AUT-0068-080	Support ring-80 (36 mm)	5
AUT-0068-120	Support ring-120 (42 mm)	5
KAD-1008	Support ring kit	5 different sizes



### SiliaSep on FlashMaster™ Instruments

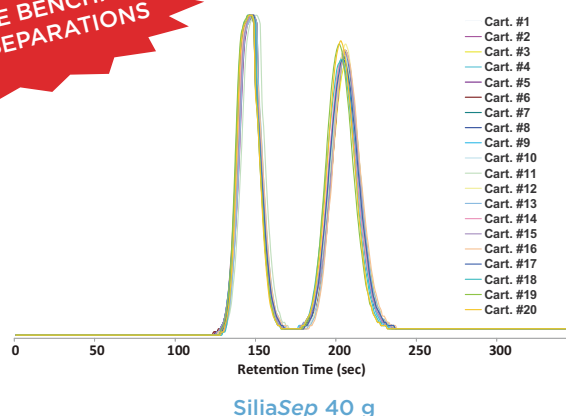
On FlashMaster systems, cartridges are running upside down (*reversed*). To use SiliaSep cartridges on any FlashMaster instrument, simply connect the SiliaSep cartridge directly on the instrument using the FlashMaster Adapter Kit (PN: KAD-1016) without the plunger. One piece holds the cartridge in place while the other connects to the solvent line.



## SiliaSep Reproducibility

SiliaSep (HP) Flash Cartridges offer incredible performance over competitive products due to the higher silica gel quality and innovative packing technology. Both cartridge series allow superior results and can be considered the products of choice for all purification needs.

**SILIASSEP, THE BENCHMARK FOR ALL SEPARATIONS**



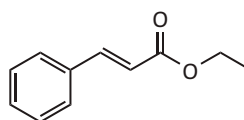
## SiliaSep Superior Performance

SiliCycle evaluated the performance of SiliaSep cartridges against some established players in chromatography and purification. In this study, cartridge performances were evaluated by the determination of different parameters including plate count (N), reduced plate height (h), symmetry index ( $SI_{10\%}$ ) and resolution factor (R). In all cases, SiliaSep allows excellent performance over the competition.

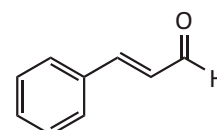
## Better Separations with SiliaSep - Higher Plate Count (N)

### SiliaSep 40 g versus another 40 g cartridge (irregular silica 40-63 $\mu\text{m}$ )

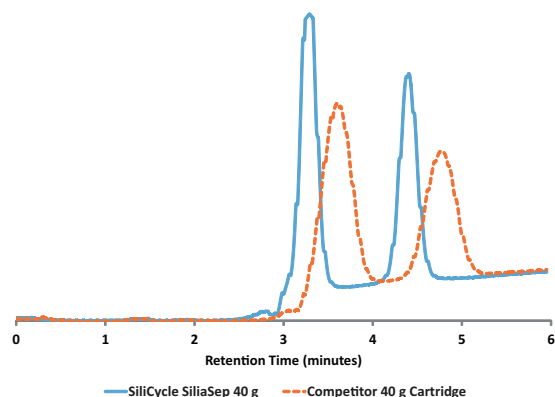
As shown below, although both cartridges have a comparable symmetry index, the SiliaSep 40 g gives a better separation due to a higher plate count and a smaller plate height compared to the cartridge from the competition.



a) Ethyl cinnamate



b) trans-cinnamaldehyde



### Separation test description

Mobile phase: Solvent A: EtOAc  
Solvent B: Hexane

Gradient: 0 to 75% of solvent B in 8 minutes

Flow rate: 40 mL / min

Injection volume: 5 mL

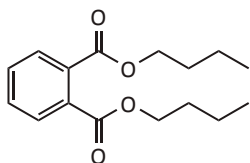
Wavelength: 254 nm

### Observed Chromatographic Parameters

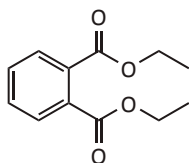
Cartridge	N	h	$SI_{10\%}$	R
SiliaSep 40 g	2,157	1.14	0.98	3.06
Competitor 40 g	830	2.80	1.11	1.57



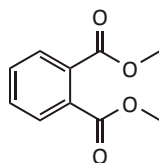
## High Resolution with SiliaSep HP



a) Dibutylphthalate



b) Diethylphthalate



c) Dimethylphthalate

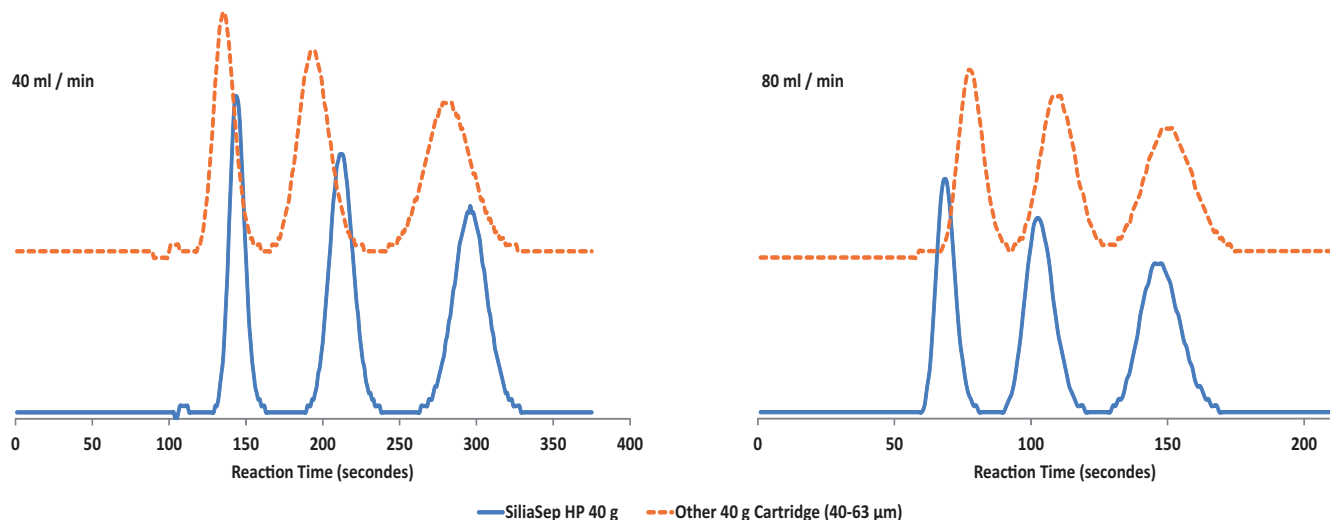
Separation test description for the two experiments shown below

Mobile phase: 20% EtOAc in Hexane  
Flow rate: 40 mL / min or 80 mL / min  
Injection volume: 5 mL  
Wavelength: 254 nm

## SiliaSep HP - Save Time with Faster Flow Rates

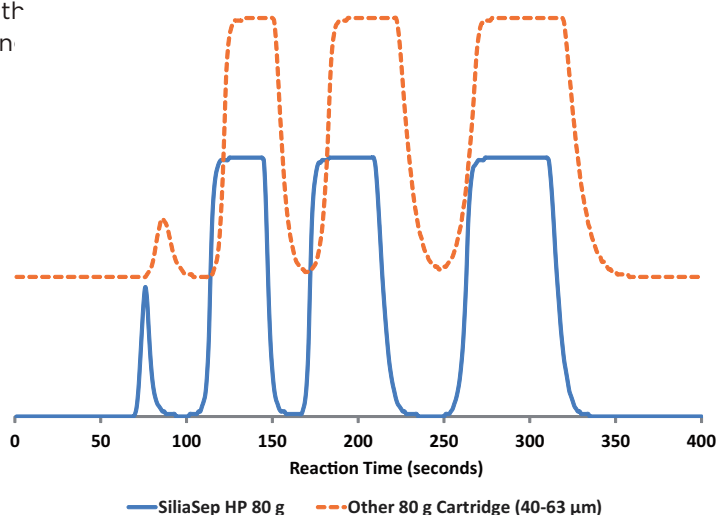
**GREENER! LESS SOLVENT CONSUMED**

The high resolution from SiliaSep HP allows the purification to run at a higher flow rate with the same high efficiency without compromising the quality of the separation.



## SiliaSep HP - Higher Loading Capacity

The high performance of SiliaSep HP, associated with the higher plate count, can also yield a higher loading capacity. As shown in the results below, SiliaSep HP may be loaded with over 50% more products compared to other 40-63 μm cartridges and still provide very good separation.

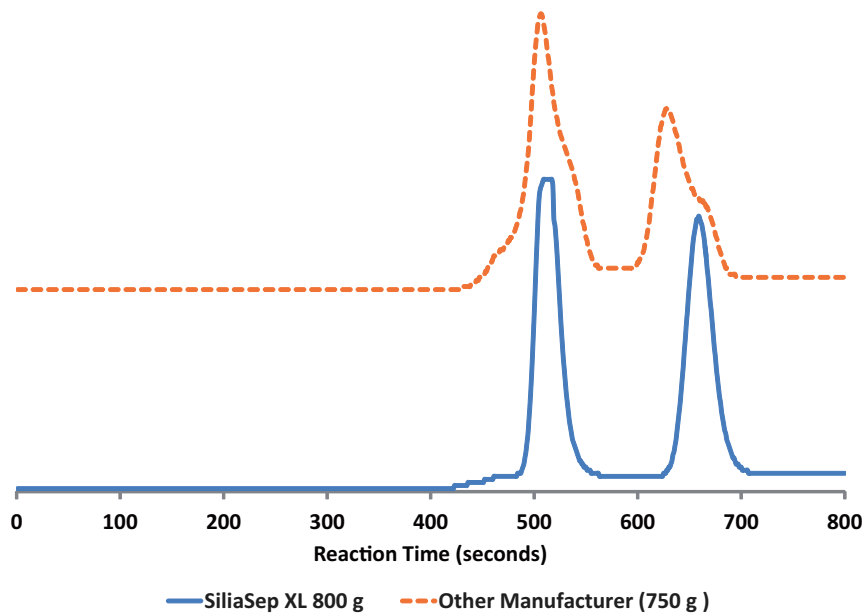


## SiliaSep XL - Superior Resolution

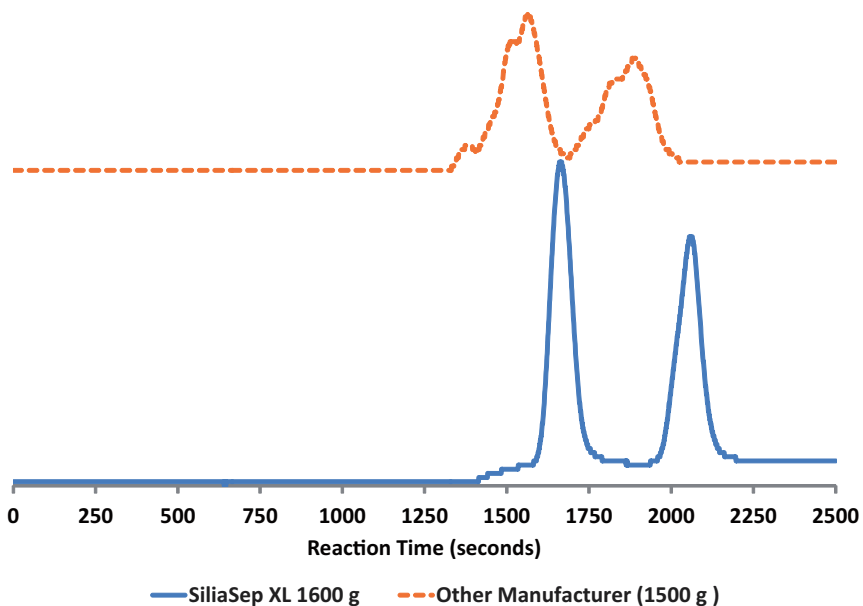
COMPARED TO A  
WELL-KNOWN BRAND.

SiliCycle evaluated the performance of the SiliaSep XL cartridges compared to a well-known brand. For both sizes, SiliaSep XL outperforms the competition.

SiliaSep XL 800 g



SiliaSep XL 1 600 g





## SiliaSep OT (*FlashMaster™ Compatible Flash Cartridges*)

### SiliaSep OT Cartridges (rated 60 psi)

Silica Weight	2 g	5 g	10 g	15 g	20 g
Dimensions ID x L	15.8 x 90 mm	20.5 x 100 mm	26.8 x 154 mm	26.8 x 154 mm	26.8 x 154 mm
Volume	12 mL	25 mL	70 mL	70 mL	70 mL
Quantity per box	20 / box	20 / box	16 / box	16 / box	16 / box
<b>SiliaSep OT Phases</b>					
SiliaSep OT Silica	FLH-R10030B-15U	SPE-R10030B-25X	FLH-R10030B-70Y	FLH-R10030B-70i	FLH-R10030B-70Z
SiliaSep OT Amine	SPE-R52030B-12U	SPE-R52030B-20X	FLH-R52030B-70Y	FLH-R52030B-70i	FLH-R52030B-70Z
SiliaSep OT Diol	SPE-R35030B-12U	SPE-R35030B-20X	FLH-R35030B-70Y	FLH-R35030B-70i	FLH-R35030B-70Z
SiliaSep OT Cyano	SPE-R38030B-12U	SPE-R38030B-20X	FLH-R38030B-70Y	FLH-R38030B-70i	FLH-R38030B-70Z
SiliaSep OT C18 (17%)	SPE-R33230B-12U	SPE-R33230B-20X	FLH-R33230B-70Y	FLH-R33230B-70i	FLH-R33230B-70Z
SiliaSep OT SCX-2	SPE-R51230B-12U	SPE-R51230B-20X	FLH-R51230B-70Y	FLH-R51230B-70i	FLH-R51230B-70Z
SiliaSep OT SAX <i>nec</i>	SPE-R66530B-12U	SPE-R66530B-20X	FLH-R66530B-70Y	FLH-R66530B-70i	FLH-R66530B-70Z
SiliaSep OT SAX-2 <i>nec</i>	SPE-R66430B-12U	SPE-R66430B-20X	FLH-R66430B-70Y	FLH-R66430B-70i	FLH-R66430B-70Z

Note: for Metal Scavengers Cartridges, see page 113 for more information.

### SiliaSep OT Cartridges (rated 60 psi)

Silica Weight	25 g	50 g	70 g	100 g
Dimensions ID x L	38.2 x 170 mm	38.2 x 170 mm	38.2 x 170 mm	40.0 x 220 mm
Volume	150 mL	150 mL	150 mL	276 mL
Quantity per box	10 / box	10 / box	10 / box	12 / box
<b>SiliaSep OT Phases</b>				
SiliaSep OT Silica	FLH-R10030B-95K	FLH-R10030B-95M	FLH-R10030B-95N	FLH-R10030B-276F
SiliaSep OT Amine	FLH-R52030B-95K	FLH-R52030B-95M	FLH-R52030B-95N	FLH-R52030B-276F
SiliaSep OT Diol	FLH-R35030B-95K	FLH-R35030B-95M	FLH-R35030B-95N	FLH-R35030B-276F
SiliaSep OT Cyano	FLH-R38030B-95K	FLH-R38030B-95M	FLH-R38030B-95N	FLH-R38030B-276F
SiliaSep OT C18 (17%)	FLH-R33230B-95K	FLH-R33230B-95M	FLH-R33230B-95N	FLH-R33230B-276F
SiliaSep OT SCX-2	FLH-R51230B-95K	FLH-R51230B-95M	FLH-R51230B-95N	FLH-R51230B-276F
SiliaSep OT SAX <i>nec</i>	FLH-R66530B-95K	FLH-R66530B-95M	FLH-R66530B-95N	FLH-R66530B-276F
SiliaSep OT SAX-2 <i>nec</i>	FLH-R66430B-95K	FLH-R66430B-95M	FLH-R66430B-95N	FLH-R66430B-276F

SiliaSep OT are also available with bar code for automation purposes.

## SiliaSep BT (*Biotage™ “i” Compatible Flash Cartridges*)

### SiliaSep BT Cartridges (rated 100 psi)

Cartridge Type	12S	12M	40S	40M	40L
Dimensions ID x L	12 x 75 mm	12 x 150 mm	40 x 75 mm	40 x 150 mm	40 x 200 mm
Quantity per box	20 / box	20 / box	12 / box	12 / box	12 / box
SiliaSep BT Silica	FLH-R10030B-12iS	FLH-R10030B-12iM	FLH-R10030B-40iS	FLH-R10030B-40iM	FLH-R10030B-40iL
<b>Other SiliaSep BT Phases</b>					
Quantity per box	2 / box	2 / box	1 / box	1 / box	1 / box
SiliaSep BT Amine	FLH-R52030B-12iS	FLH-R52030B-12iM	FLH-R52030B-40iS	FLH-R52030B-40iM	FLH-R52030B-40iL
SiliaSep BT Diol	FLH-R35030B-12iS	FLH-R35030B-12iM	FLH-R35030B-40iS	FLH-R35030B-40iM	FLH-R35030B-40iL
SiliaSep BT Cyano	FLH-R38030B-12iS	FLH-R38030B-12iM	FLH-R38030B-40iS	FLH-R38030B-40iM	FLH-R38030B-40iL
SiliaSep BT C18 (17%)	FLH-R33230B-12iS	FLH-R33230B-12iM	FLH-R33230B-40iS	FLH-R33230B-40iM	FLH-R33230B-40iL
SiliaSep BT SCX-2	FLH-R51230B-12iS	FLH-R51230B-12iM	FLH-R51230B-40iS	FLH-R51230B-40iM	FLH-R51230B-40iL
SiliaSep BT SAX <i>nec</i>	FLH-R66530B-12iS	FLH-R66530B-12iM	FLH-R66530B-40iS	FLH-R66530B-40iM	FLH-R66530B-40iL
SiliaSep BT SAX-2 <i>nec</i>	FLH-R66430B-12iS	FLH-R66430B-12iM	FLH-R66430B-40iS	FLH-R66430B-40iM	FLH-R66430B-40iL

### SiliaSep BT Cartridges (rated 100 psi)

Cartridge Type	65	75S	75M	75L
Dimensions ID x L	65 x 200 mm	75 x 90 mm	75 x 170 mm	75 x 350 mm
Quantity per box	6 / box	2 / box*	2 / box*	2 / box*
SiliaSep BT Silica	FLH-R10030B-65i	FLH-R10030B-75iS	FLH-R10030B-75iM	FLH-R10030B-75iL
<b>Other SiliaSep BT Phases</b>				
Quantity per box	1 / box	1 / box	1 / box	1 / box
SiliaSep BT Amine	FLH-R52030B-65i	FLH-R52030B-75iS	FLH-R52030B-75iM	FLH-R52030B-75iL
SiliaSep BT Diol	FLH-R35030B-65i	FLH-R35030B-75iS	FLH-R35030B-75iM	FLH-R35030B-75iL
SiliaSep BT Cyano	FLH-R38030B-65i	FLH-R38030B-75iS	FLH-R38030B-75iM	FLH-R38030B-75iL
SiliaSep BT C18 (17%)	FLH-R33230B-65i	FLH-R33230B-75iS	FLH-R33230B-75iM	FLH-R33230B-75iL
SiliaSep BT SCX-2	FLH-R51230B-65i	FLH-R51230B-75iS	FLH-R51230B-75iM	FLH-R51230B-75iL
SiliaSep BT SAX <i>nec</i>	FLH-R66530B-65i	FLH-R66530B-75iS	FLH-R66530B-75iM	FLH-R66530B-75iL
SiliaSep BT SAX-2 <i>nec</i>	FLH-R66430B-65i	FLH-R66430B-75iS	FLH-R66430B-75iM	FLH-R66430B-75iL

\*Box of 10 also available.

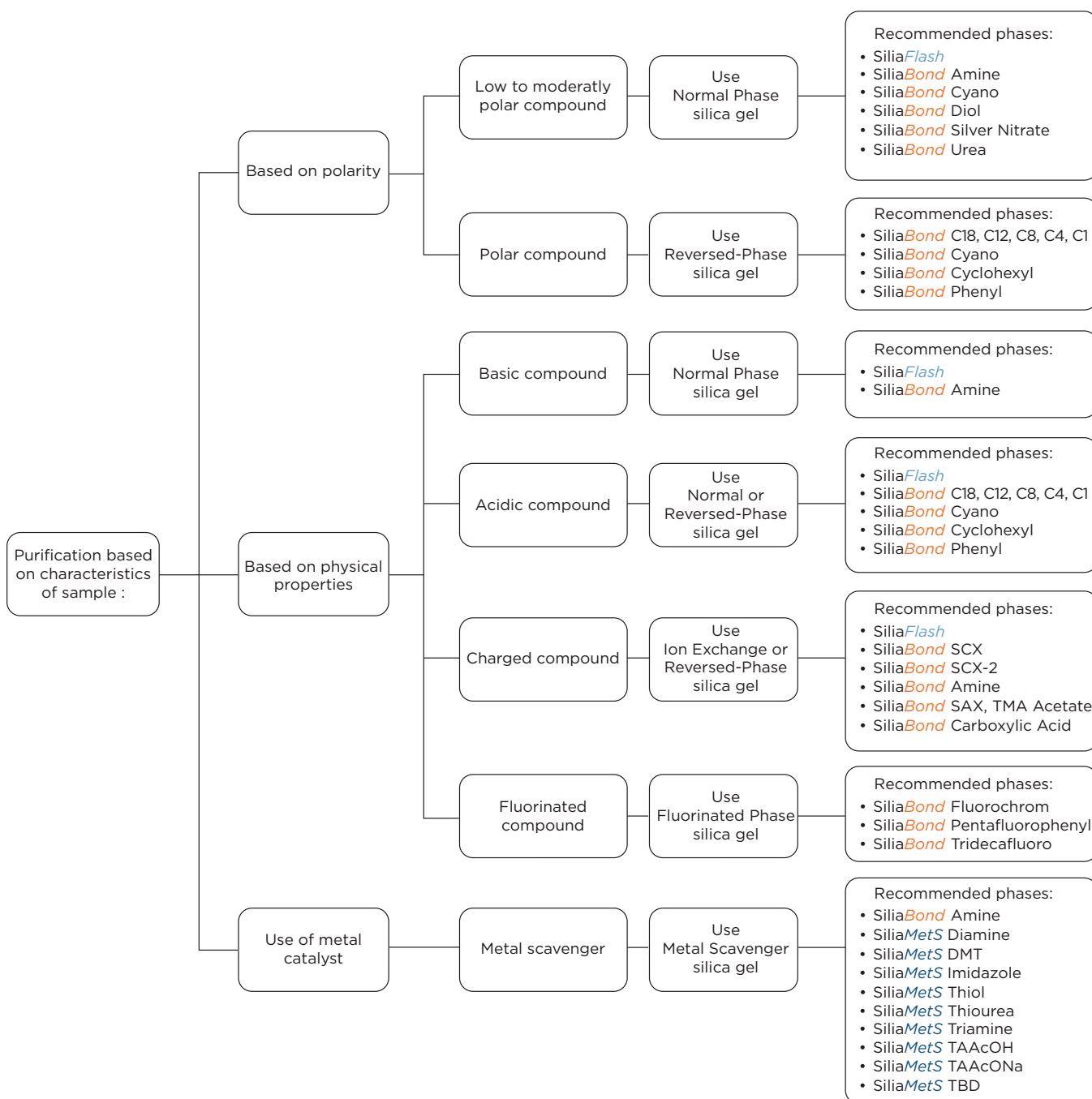
### SiliaSep BT Silica Characteristics

Product Number	Silica Weight (g)	Column Volume (mL)	Recommended Flow Rate (mL/min)	Loading Capacity (g)
FLH-R10030B-12iM		6	3 - 12	0.005 - 0.45
FLH-R10030B-12iM	9	12	3 - 12	0.01 - 0.90
FLH-R10030B-40iS	45	60	25 - 50	0.05 - 4.5
FLH-R10030B-40iM	90	120	25 - 50	0.10 - 9.0
FLH-R10030B-40iL	135	160	25 - 50	0.15 - 13.5
FLH-R10030B-65i	350	350	65 - 85	0.4 - 35
FLH-R10030B-75iS	200	300	100 - 250	0.2 - 20
FLH-R10030B-75iM	400	500	100 - 250	0.4 - 40
FLH-R10030B-75iL	800	1,000	100 - 250	0.8 - 80



## SiliaSep Sorbent Selection Chart

SiliCycle offers a wide range of SiliaSep sorbents to cover many kinds of purification. The following chart is designed to serve as a guide for the selection of the appropriated sorbent based on the characteristics of the sample to be purified.



## SiliaSep Loading Chart

SiliaSep Cartridge Loading Chart											
Dimensions OD x L (mm x mm)	SiliaSep Format	$\Delta CV =$ 0.1-0.6 Load (g)	$\Delta CV =$ 0.7-1.2 Load (g)	$\Delta CV =$ 1.3-1.8 Load (g)	$\Delta CV =$ 1.9-2.4 Load (g)	$\Delta CV =$ 2.5-3.1 Load (g)	$\Delta CV =$ 3.2-3.8 Load (g)	$\Delta CV =$ 3.9-4.5 Load (g)	$\Delta CV =$ 4.6-5.2 Load (g)	$\Delta CV =$ 5.3-6.0 Load (g)	$\Delta CV =$ > 6 Load (g)
16 x 98	4 g	0.040	0.080	0.120	0.160	0.200	0.240	0.280	0.320	0.360	0.400
16 x 98	4 g (HP)	0.052	0.104	0.156	0.208	0.260	0.312	0.364	0.416	0.468	0.520
25 x 117	12 g	0.120	0.240	0.360	0.480	0.600	0.720	0.840	0.960	1.080	1.200
25 x 117	12 g (HP)	0.156	0.312	0.468	0.624	0.780	0.936	1.092	1.248	1.404	1.560
25 x 165	25 g	0.250	0.500	0.750	1.000	1.250	1.500	1.750	2.000	2.250	2.500
25 x 165	25 g (HP)	0.325	0.650	0.975	1.300	1.625	1.950	2.275	2.600	2.925	3.250
32 x 169	40 g	0.400	0.800	1.200	1.600	2.000	2.400	2.800	3.200	3.600	4.000
32 x 169	40 g (HP)	0.520	1.040	1.560	2.080	2.600	3.120	3.640	4.160	4.680	5.200
36 x 237	80 g	0.800	1.600	2.400	3.200	4.000	4.800	5.600	6.400	7.200	8.000
36 x 237	80 g (HP)	1.040	2.080	3.120	4.160	5.200	6.240	7.280	8.320	9.360	10.400
42 x 256	120 g	1.200	2.400	3.600	4.800	6.000	7.200	8.400	9.600	10.800	12.000
42 x 256	120 g (HP)	1.560	3.120	4.680	6.240	7.800	9.360	10.920	12.480	14.040	15.600
66 x 195	220 g	2.200	4.400	6.600	8.800	11.000	13.200	15.400	17.600	19.800	22.000
66 x 195	220g(HP)	2.860	5.720	8.580	11.440	14.300	17.160	20.020	22.880	25.740	28.600
66 x 268	330 g	3.300	6.600	9.900	13.200	16.500	19.800	23.100	26.400	29.700	33.000
66 x 268	330g(HP)	4.290	8.580	12.870	17.160	21.450	25.740	30.030	34.320	38.610	42.900
89 x 382	800 g	8.000	16.000	24.000	32.000	40.000	48.000	56.000	64.000	72.000	80.000
120 x 429	1 600 g	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000

Correlation Rf vs CV	
Rf	CV
0.95	1.05
0.90	1.10
0.85	1.17
0.80	1.25
0.75	1.33
0.70	1.40
0.65	1.54
0.60	1.65
0.55	1.81
0.50	2.00
0.45	2.22
0.40	2.50
0.35	2.86
0.30	3.33
0.25	4.00
0.20	5.00
0.15	6.67
0.10	10.00
0.05	20.00