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Santai Focus

Santai is a customer- and technology-driven company founded in 2004 and focused on developing separation and purification tools and services for professionals and scientists in the pharmaceutical, biotechnology, fine chemicals, natural products and petrochemical industries.

Santai is known as one of the best and most consistent column packing and chromatography product company in the world.

Santai offers a full line of products designed for high-reproducibility separation and purification. Try us now!

Santai also offers custom packing columns using only select sources of media.

We can quickly produce OEM/private label columns—complete with your own labels AND your own packaging.

Santai has operations and warehousing business in many countries across America, Asia and Europe.

Our semi-automated packing process enables us to provide reproducibility with a direct-manufacturing cost structure.

By doing business with us, you are dealing directly with the most highly respected manufacturing engineers and chemists who uphold the highest standards of confidentiality.

Santai will continue to develop innovative solutions and tools to meet the separation and purification needs of professionals and scientists.

Product Highlights

SepaFlash® columns are an excellent alternative to the other flash columns available on the market as they offer the following advantages:

- Low fines; Neutral pH; 100% guaranteed leak-free
- Clean, pre-packed, pharmaceutical-grade polypropylene cartridges
- Made with ultra-pure silica gel (we can pack your own source)
- Tight particle-size distribution to avoid leaching and/or channelling, no tailing
- Water activity and controlled water content for silica
- Innovative and semi-automated packing technology
- Five series available (Standard Series, E Series, HP Series, Bonded Series and iLOK® Series)
- Proprietary coating technology for TLC plates available
- 11 years of “lot-to-lot” reproducibility

100% COMPATIBILITY with other instruments

- Teledyne Isco (CombiFlash®: Rf, Companion®, RETRIEVE®, OptiX®)
- Biotage (Isolera™, SP, Flash, FlashMaster II)
- Analogix (Varian) (IntelliFlash 310 and 280, SimpliFlash, F12/40)
- Interchim (puriFlash™ 430evo); Grace (Reveleris® System)
- Armen (Spot Flash System); Moritex (Purif-α2, Purif-compact)
- Yamazen (Smart Flash EPCLC W-Prep 2XY); BUCHI (Sepacore®)

SepaFlash® Column Overview for Standard Series

SepaFlash® columns are an excellent alternative to the other flash columns available on the market, and you will enjoy fast, easy purification and scale-up from milligram to hundreds of grams. SepaFlash® columns offer the following advantages:

Reliable and Reproducible

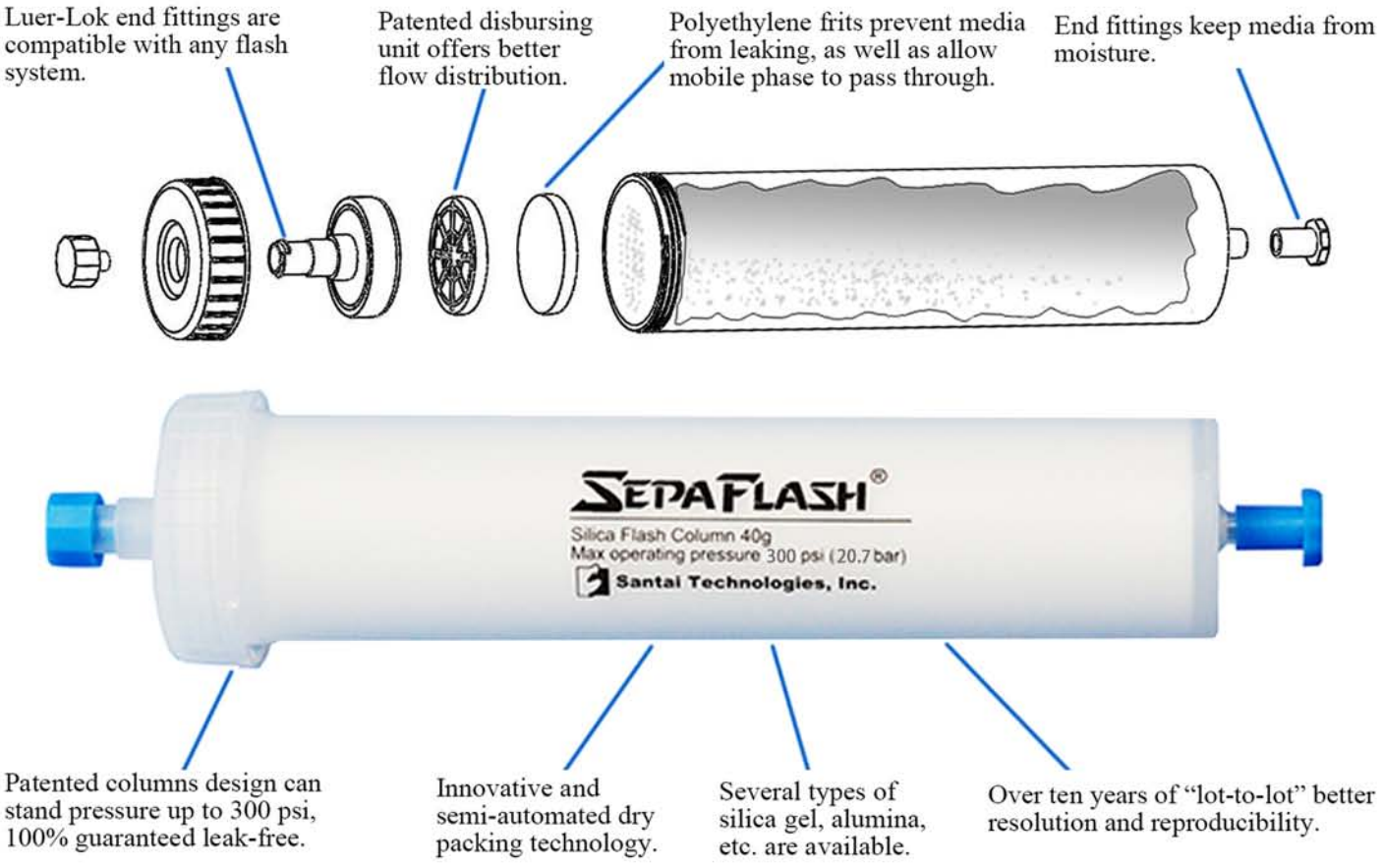
SepaFlash® columns are produced with proprietary dry packing technique for uniform packed sorbent bed with less channeling effect, tighter band and symmetrical peak definition, resulting higher resolution and reproducibility. They feature patent design with standard Lure-Lok end fittings for quick, easy connection to commercially available flash systems on the market. The quality is consistent for SepaFlash® columns over ten years, to ensure that the chemists are able to complete the everyday purification with pleasure.

Versatile

SepaFlash® columns are available from 4 gram up to 1.6 kg column size allowing purification from 10 milligram up to 160 grams. The enhanced product offering with high-efficiency silica gel (irregular, 25-40 μm, 60 Å) provides an outstanding performance with lower use-cost.

Safe

Innovative column design on SepaFlash® columns are pressure rated for safe operation. Machine assembling column heads ensure the columns are able to withstand the pressure capability of modern flash systems and not leak valuable compound.



SepaFlash® Column Overview for HP Series

SepaFlash® columns are an excellent alternative to the other flash columns available on the market, and you will enjoy fast, easy purification and scale-up from milligram to dozens of grams. SepaFlash® columns offer the following advantages:

Reliable and Reproducible

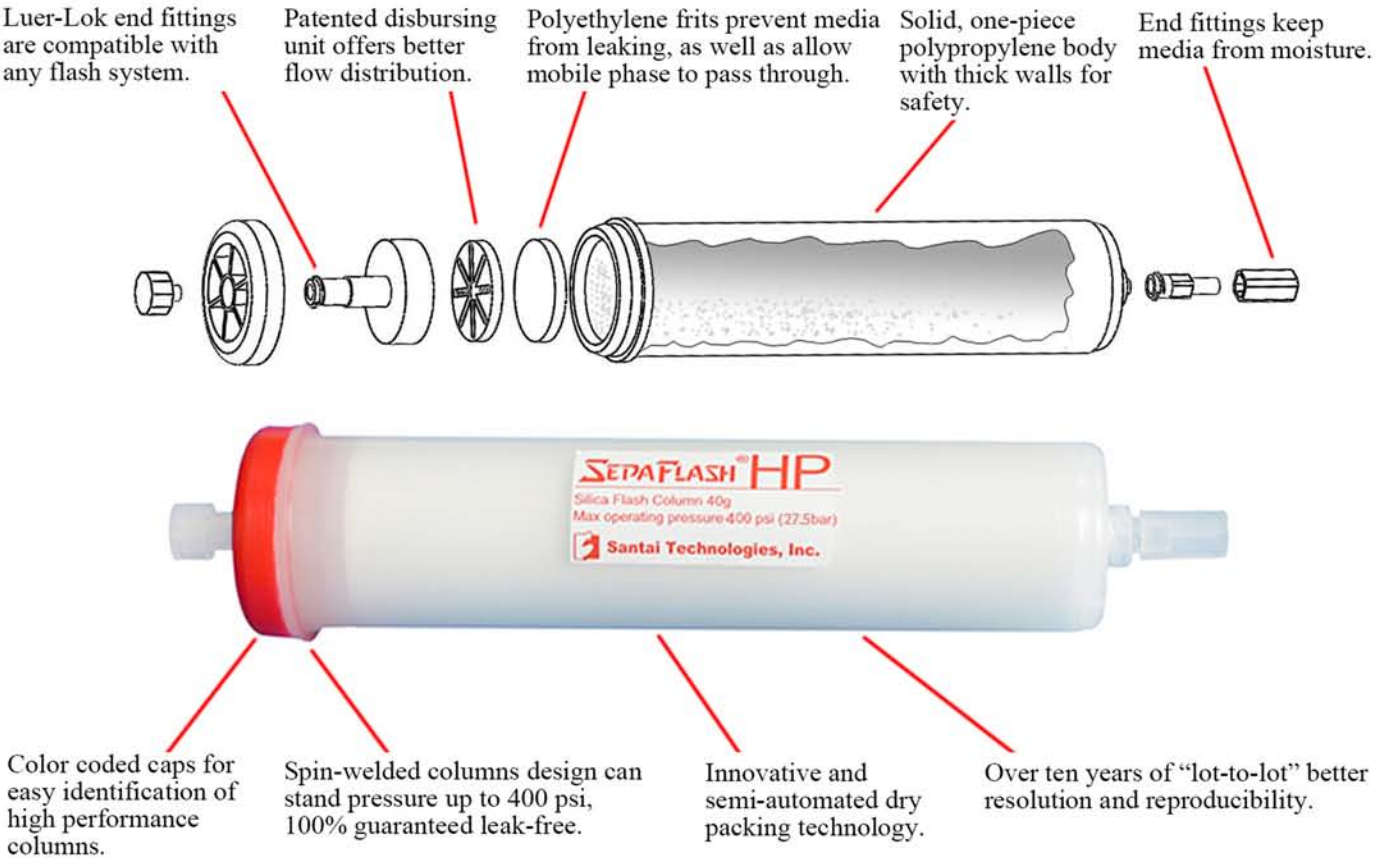
SepaFlash® columns are produced with proprietary dry packing technique for uniform packed sorbent bed with less channeling effect, tighter band and symmetrical peak definition, resulting higher resolution and reproducibility. They feature patent design with standard Lure-Lok end fittings for quick, easy connection to commercially available flash systems on the market. The quality is consistent for SepaFlash® columns over ten years, to ensure that the chemists are able to complete the everyday purification with pleasure.

Versatile

SepaFlash® columns are available from 4 gram up to 330 gram column size allowing purification from 10 milligram up to 50 grams. The enhanced product offering with high-efficiency silica gel (spherical, 20-45 μm, 70 Å) provides an outstanding performance without increasing the backpressure.

Safe

Extra thick walls on SepaFlash® columns are pressure rated for safe operation. Spin-welded column heads ensure the columns are able to withstand the pressure capability of modern flash systems and not leak valuable compound.



SepaFlash® Column Overview for iLOK® Series

SepaFlash® columns are an excellent alternative to the other flash columns available on the market, and you will enjoy fast, easy purification and scale-up from milligram to dozens of grams. SepaFlash® columns offer the following advantages:

Reliable and Reproducible

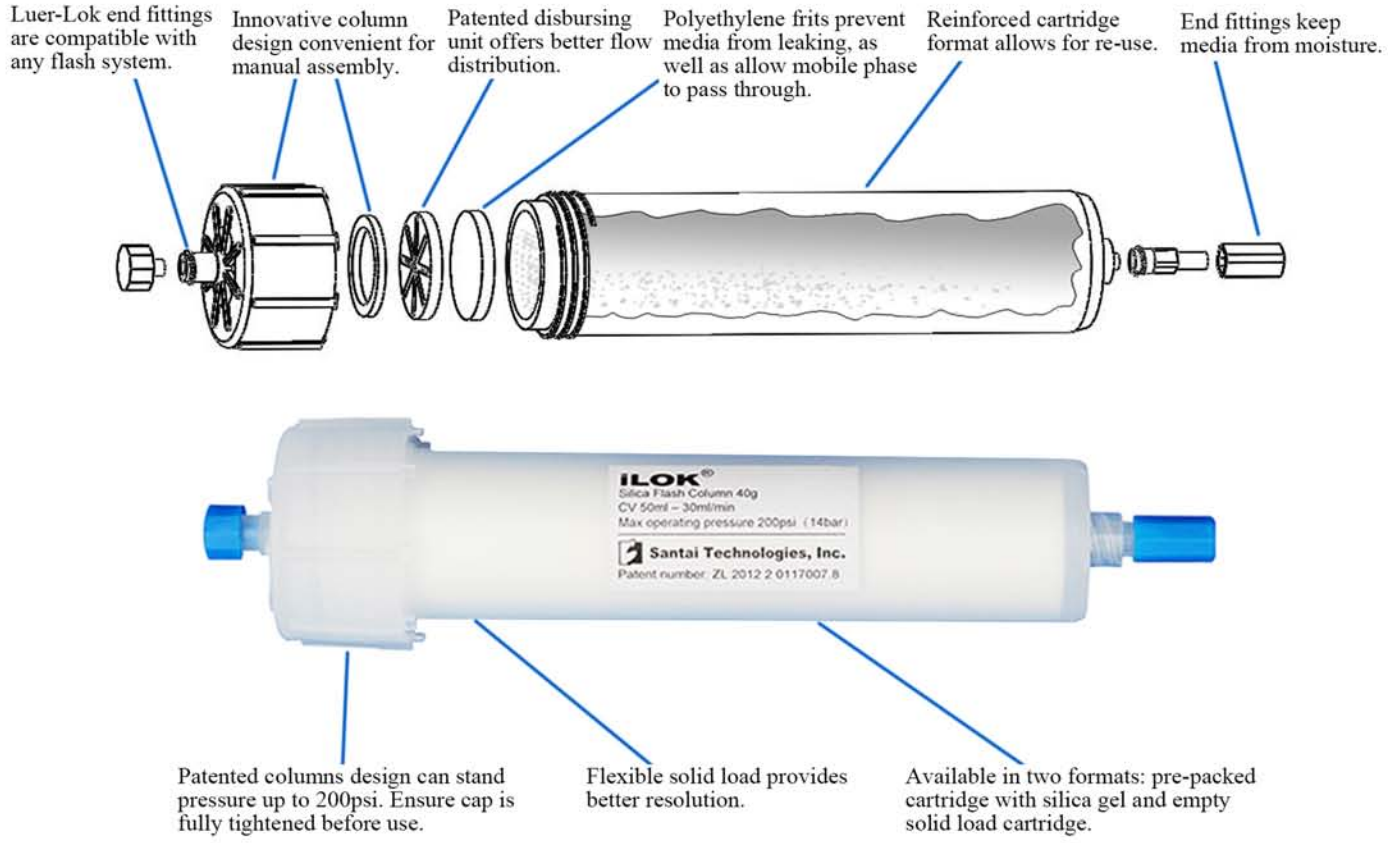
SepaFlash® iLOK® cartridges are offered in two formats: iLOK® pre-packed cartridge and iLOK® empty solid load cartridge. iLOK® pre-packed cartridges are produced with proprietary dry packing technique for higher resolution and reproducibility. They feature patent design with standard Lure-Lok end fittings for quick, easy connection to commercially available flash systems on the market. The quality is consistent for SepaFlash® columns over ten years, to ensure that the chemists are able to complete the everyday purification with pleasure.

Versatile

SepaFlash® iLOK® cartridges are available from 4 gram up to 330 gram column size allowing purification from 10 milligram up to 33 grams. They offer users convenience for manual assembly, allowing for a flexible sample loading method: solid load and direct liquid injection.

Safe

Extra thick walls on SepaFlash® columns are pressure rated for safe operation. Reinforced cartridge body ensures the column is able to withstand the pressure capability of modern flash systems and not leak valuable compound.



Standard Series

Standard Series flash columns are machine packed with ultra-pure silica gel using proprietary dry packing technique.

※ Ultra-pure silica features tight particle size distribution, low level of fines and low trace metal content, neutral pH, controlled water content and high surface area, providing scientists the desired reproducible experimental results.

※ Unique, proprietary dry packing technique guarantees high resolution and reproducibility for everyday purifications.

Ultra-pure irregular silica, 40–63 μm, 60 Å

(Surface area 500 m^2/g, pH 6.5–7.5, Loading capacity 0.1–10%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
S-5101-0004	4 g	4 mg–0.4 g	20	15–40	105.8	12.4	300/20.7
S-5101-0012	12 g	12 mg–1.2 g	18	30–60	124.5	21.2	300/20.7
S-5101-0025	25 g	25 mg–2.5 g	12	30–60	172.7	21.3	300/20.7
S-5101-0040	40 g	40 mg–4.0 g	12	40–70	176.0	26.7	300/20.7
S-5101-0080	80 g	80 mg–8.0 g	10	50–100	246.8	30.9	200/13.8
S-5101-0120	120 g	120 mg–12 g	10	60–150	264.6	36.2	200/13.8
S-5101-0220	220 g	220 mg–22 g	6	80–220	203.7	60.1	150/10.3
S-5101-0330	330 g	330 mg–33 g	5	80–220	275.0	60.4	150/10.3
S-5101-0800	800 g	800 mg–80 g	3	100–300	382.9	78.2	100/6.9
S-5101-1600	1600 g	1.6 g–160 g	2	200–500	432.4	103.8	100/6.9

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency irregular silica, 25–40 μm, 60 Å

(Surface area 500 m^2/g, pH 6.5–7.5, Loading capacity 0.1–15%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
S-5102-0004	4 g	4 mg–0.6 g	20	15–30	105.8	12.4	300/20.7
S-5102-0012	12 g	12 mg–1.8 g	18	25–50	124.5	21.2	300/20.7
S-5102-0025	25 g	25 mg–3.8 g	12	25–50	172.7	21.3	300/20.7
S-5102-0040	40 g	40 mg–6.0 g	12	30–60	176.0	26.7	300/20.7
S-5102-0080	80 g	80 mg–12 g	10	40–80	246.8	30.9	200/13.8
S-5102-0120	120 g	120 mg–18 g	10	60–100	264.6	36.2	200/13.8
S-5102-0220	220 g	220 mg–33 g	6	80–160	203.7	60.1	150/10.3
S-5102-0330	330 g	330 mg–50 g	5	80–160	275.0	60.4	150/10.3

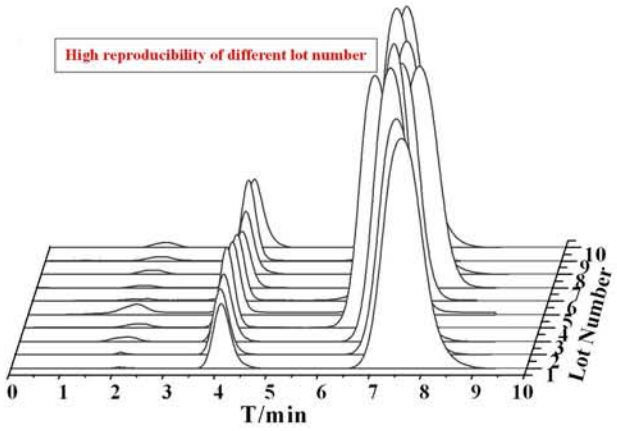
※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Applications and Results with SepaFlash® flash columns

SepaFlash® flash columns offer incredible performance over competitive products due to the higher silica gel quality and innovative packing technique.

High Reproducibility with SepaFlash®

SepaFlash® Silica Flash Column 120 g
Sample: Acetophenone and P-Methoxyacetophenone
Mobile phase: 80% hexane and 20% ethyl acetate
Flow Rate: 85 mL/min
Sample Size: 1.5 mL
WaveLength: 254 nm



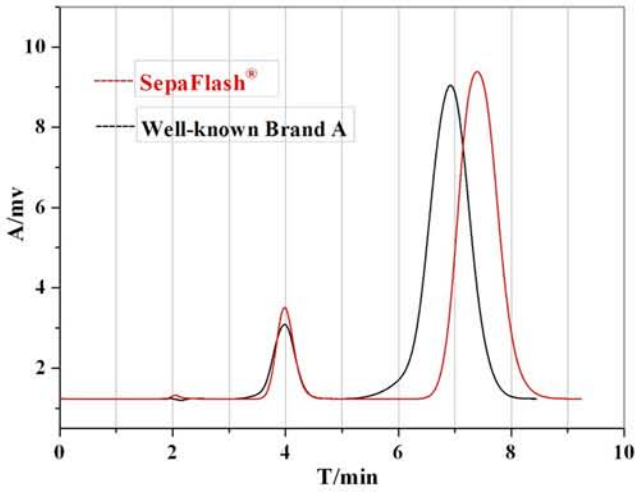
Better Separations with SepaFlash®

Santai evaluated the performance of the SepaFlash® columns compared to two well-known brands. Results show SepaFlash® outperforms the competitions.

SepaFlash® 120 g Versus Brand A 120 g
Sample: Acetophenone and P-Methoxyacetophenone
Mobile phase: 80% hexane and 20% ethyl acetate
Flow Rate: 85 mL/min
Sample Size: 1.5 mL
WaveLength: 254 nm

Observed Chromatographic Parameters:

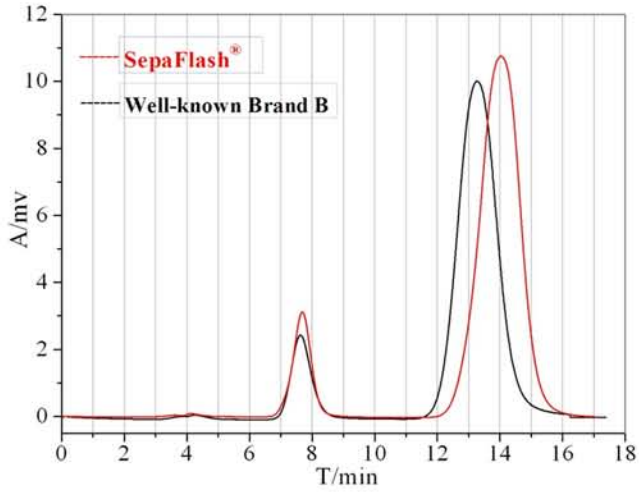
Column Size	t_R	N	Rs	T
SepaFlash® 120g	4.0 min	519	3.54	1.13
Brand A 120g	4.0 min	408	2.73	0.92



SepaFlash® 330 g Versus Brand B 340 g
Sample: Acetophenone and P-Methoxyacetophenone
Mobile phase: 80% hexane and 20% ethyl acetate
Flow Rate: 120 mL/min
Sample Size: 5 mL
WaveLength: 254 nm

Observed Chromatographic Parameters:

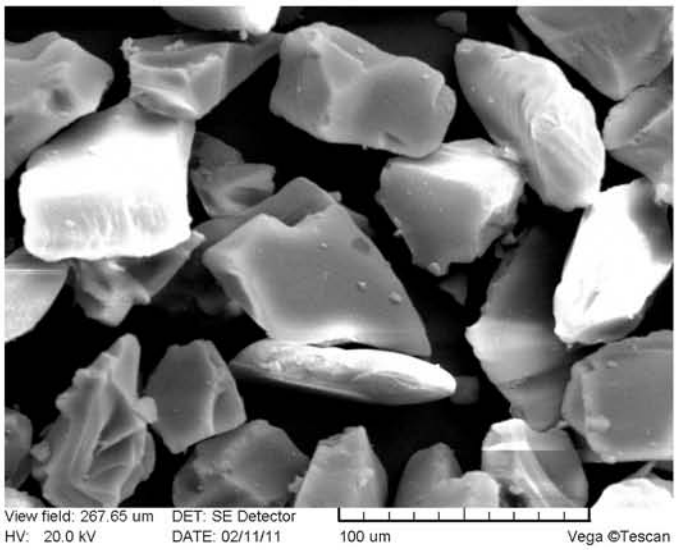
Column Size	t_R	N	Rs	T
SepaFlash® 330g	7.7 min	539	3.54	0.97
Brand B 340g	7.6 min	510	3.11	1.11



The characteristics for ultra-pure irregular silica gel

This cost efficient material has an irregular particle shape with smooth edges, a very narrow particle size distribution and the low level of fines offered by Santai, that will optimize your separating power, saving you time and money. The irregular silica gel has two kinds of specifications, 40-63 μm and 25-40 μm.

Especially, Santai further develops the stable dry packing technique for irregular 25-40 μm silica, and the pre-packed 25-40 μm silica cartridges will show extraordinary separation ability.



SEM picture of 40-63 μm silica gel

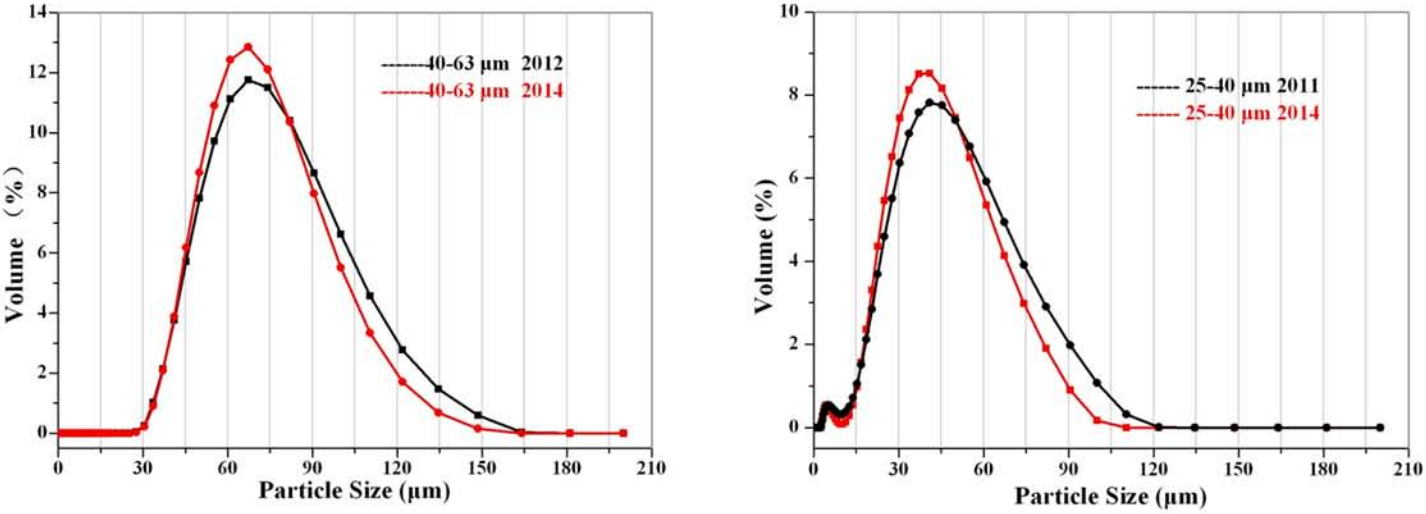
Santai' silica gel also offers these advantages over competitor's products:

Neutral pH: The pH of Santai's irregular silica gel is kept between 6.5−7.5. A neutral pH is needed to separate pH sensitive compounds.

Stable water level content: Water level of silica gel can affects the selectivity of the silica. Santai's irregular silica gel has a controlled water content of 4% to 6%.

High surface area: Higher surface area (500 m^2/g for 60 Å pore size) provides greater separation power.

Tight particle size distribution and high batch-to-batch reproducibility: A narrower particle size distribution will give a more homogenous packing that will help in collecting more concentrated fractions and reducing solvent consumption, which will lead to cost savings. The high batch-to-batch reproducibility of particle size distribution fundamentally guarantees the excellent separation performance. The details please see the SEM picture and particle size distribution of two batches.



Particle size distribution of two batches for 40-63 μm and 25-40 μm silica gel

E Series

E series flash columns are manufactured with the same cartridges as the standard series (and therefore have all the same great characteristics) but are packed with economical, high-quality silica gel (40-63 μm, 60 Å) or 50-75 μm alumina. Especially, the alumina flash columns are useful when the samples are sensitive and prone to degradation on silica gel. This series represents money savings for everyday purification.

High-quality irregular silica, 40–63 μm, 60 Å

(Surface area 500 m^2/g, pH 6.5–7.5, Loading capacity 0.1–10%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
S-8101-0004	4 g	4 mg–0.4 g	20	15–40	105.8	12.4	300/20.7
S-8101-0012	12 g	12 mg–1.2 g	18	30–60	124.5	21.2	300/20.7
S-8101-0025	25 g	25 mg–2.5 g	12	30–60	172.7	21.3	300/20.7
S-8101-0040	40 g	40 mg–4.0 g	12	40–70	176.0	26.7	300/20.7
S-8101-0080	80 g	80 mg–8.0 g	10	50–100	246.8	30.9	200/13.8
S-8101-0120	120 g	120 mg–12 g	10	60–150	264.6	36.2	200/13.8
S-8101-0220	220 g	220 mg–22 g	6	80–220	203.7	60.1	150/10.3
S-8101-0330	330 g	330 mg–33 g	5	80–220	275.0	60.4	150/10.3
S-8101-0800	800 g	800 mg–80 g	3	100–300	382.9	78.2	100/6.9
S-8101-1600	1600 g	1.6 g–160 g	2	200–500	432.4	103.8	100/6.9

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-quality alumina, 50–75 μm

(pH: Acidic 3.8–4.8, Neutral 6.5–7.5, Basic 9.0–10.0; Loading capacity 0.5–4%)

For acidic alumina, replace “N” with “A” in item number, and for basic alumina with “B”.

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
S-8601-0004-N	8 g	40 mg–0.32 g	20	10–30	105.8	12.4	300/20.7
S-8601-0012-N	24 g	120 mg–1.0 g	18	15–45	124.5	21.2	300/20.7
S-8601-0025-N	50 g	250 mg–2.0 g	12	15–45	172.7	21.3	300/20.7
S-8601-0040-N	80 g	400 mg–3.2 g	12	20–50	176.0	26.7	300/20.7
S-8601-0080-N	160 g	800 mg–6.4 g	10	30–70	246.8	30.9	200/13.8
S-8601-0120-N	240 g	1.2 g–9.6 g	10	40–80	264.6	36.2	200/13.8
S-8601-0220-N	440 g	2.2 g–17.6 g	6	50–120	203.7	60.1	150/10.3
S-8601-0330-N	660 g	3.3 g–26.4 g	5	50–120	275.0	60.4	150/10.3
S-8601-0800-N	1600 g	8.0 g–64 g	3	100–200	382.9	78.2	100/6.9
S-8601-1600-N	3200 g	16 g–128 g	2	150–300	432.4	103.8	100/6.9

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

HP Series

HP series flash columns are spin-welded and allow for higher pressure of up to 400 psi. Available adapter facilitates compatibility with any flash system on the market. This series provides Luer-Lok in and Luer-Lok out flexibility for convenient column stacking. When pre-packed high-efficiency silica gel (irregular, 25-40 μm, 60 Å; spherical, 20-45 μm, 70 Å), this series presents an outstanding resolution over conventional flash cartridges.

※ Solid, one-piece polypropylene body with thick walls for safety;

※ Freely choose irregular silica or spherical silica according to your personal preference;

※ Markedly improved resolution and high load ability;

※ Spherical silica provides improved performance without increasing the backpressure.

Ultra-pure irregular silica, 40−63 μm, 60 Å

(Surface area 500 m^2/g, pH 6.5–7.5, Loading capacity 0.1–10%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5101-004	4 g	4 mg–0.4 g	20	15–40	113.8	12.4	400/27.5
SW-5101-012	12 g	12 mg–1.2 g	18	30–60	134.8	21.4	400/27.5
SW-5101-025	25 g	25 mg–2.5 g	12	30–60	184.0	21.4	400/27.5
SW-5101-040	40 g	40 mg–4.0 g	12	40–70	184.4	26.7	400/27.5
SW-5101-080	80 g	80 mg–8.0 g	10	50–100	257.4	31.2	350/24.0
SW-5101-120	120 g	120 mg–12 g	10	60–150	261.5	38.6	300/20.7
SW-5101-220	220 g	220 mg–22 g	6	80–220	223.5	61.4	300/20.7
SW-5101-330	330 g	330 mg–33 g	5	80–220	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Ultra-pure spherical silica, 40−75 μm, 70 Å (NEW Product)

(Surface area 500 m^2/g, pH 6.0–8.0, Loading capacity 0.1–10%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-2101-004-SP	4 g	4 mg–0.4 g	20	15–40	113.8	12.4	400/27.5
SW-2101-012-SP	12 g	12 mg–1.2 g	18	30–60	134.8	21.4	400/27.5
SW-2101-025-SP	25 g	25 mg–2.5 g	12	30–60	184.0	21.4	400/27.5
SW-2101-040-SP	40 g	40 mg–4.0 g	12	40–70	184.4	26.7	400/27.5
SW-2101-080-SP	80 g	80 mg–8.0 g	10	50–100	257.4	31.2	350/24.0
SW-2101-120-SP	120 g	120 mg–12 g	10	60–150	261.5	38.6	300/20.7
SW-2101-220-SP	220 g	220 mg–22 g	6	80–220	223.5	61.4	300/20.7
SW-2101-330-SP	330 g	330 mg–33 g	5	80–220	280.2	60.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency irregular silica, 25−40 μm, 60 Å

(Surface area 500 m^2/g, pH 6.5–7.5, Loading capacity 0.1–15%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5102-004	4 g	4 mg–0.6 g	20	15–30	113.8	12.4	400/27.5
SW-5102-012	12 g	12 mg–1.8 g	18	25–50	134.8	21.4	400/27.5
SW-5102-025	25 g	25 mg–3.8 g	12	25–50	184.0	21.4	400/27.5
SW-5102-040	40 g	40 mg–6.0 g	12	30–60	184.4	26.7	400/27.5
SW-5102-080	80 g	80 mg–12 g	10	40–80	257.4	31.2	350/24.0
SW-5102-120	120 g	120 mg–18 g	10	60–100	261.5	38.6	300/20.7
SW-5102-220	220 g	220 mg–33 g	6	80–160	223.5	61.4	300/20.7
SW-5102-330	330 g	330 mg–50 g	5	80–160	280.2	60.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical silica, 20−45 μm, 70 Å (NEW Product)

(Surface area 500 m^2/g, pH 6.0–8.0, Loading capacity 0.1–15%)

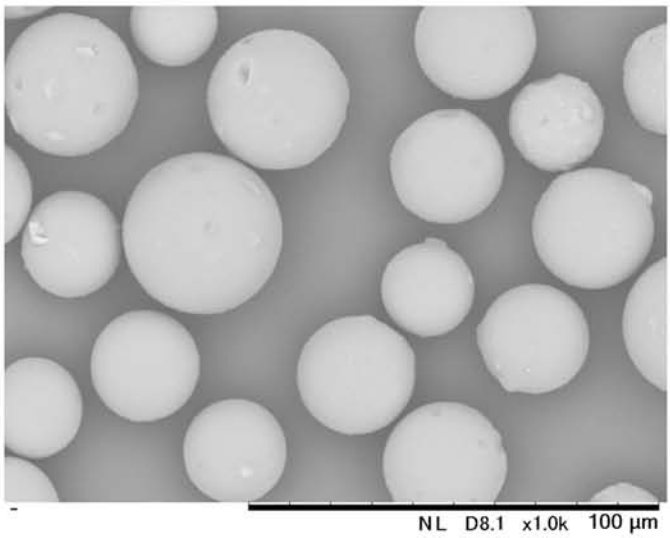
Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-2102-004-SP	4 g	4 mg–0.6 g	20	15–30	113.8	12.4	400/27.5
SW-2102-012-SP	12 g	12 mg–1.8 g	18	25–50	134.8	21.4	400/27.5
SW-2102-025-SP	25 g	25 mg–3.8 g	12	25–50	184.0	21.4	400/27.5
SW-2102-040-SP	40 g	40 mg–6.0 g	12	30–60	184.4	26.7	400/27.5
SW-2102-080-SP	80 g	80 mg–12 g	10	40–80	257.4	31.2	350/24.0
SW-2102-120-SP	120 g	120 mg–18 g	10	60–100	261.5	38.6	300/20.7
SW-2102-220-SP	220 g	220 mg–33 g	6	80–160	223.5	61.4	300/20.7
SW-2102-330-SP	330 g	330 mg–50 g	5	80–160	280.2	60.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

The benefits for spherical silica gel

For spherical silica gel, strict quality controls from raw material to finished product ensure high lot-to-lot reproducibility and tightly controlled specifications.

※ Consistency reliability, reproducibility;
※ No contamination, lower backpressure;
※ Superior separation;
※ Symmetrical peaks with no tailing;
※ Greater loading capacity.



SEM picture of spherical 20–45 μm silica gel

SepaFlash® column stacking to improve resolution of normal phase flash chromatography

Purification of compounds that are difficult to separate by flash chromatography (ΔRf ≤ 0.2 between spots on TLC) often results in additional steps such as subsequent purification by preparative scale HPLC. It is possible to reduce the amount of additional work required for purification by simply stacking several prepacked SepaFlash® columns end to end on a flash chromatography system.

In liquid chromatography, chemical species are separated on the basis of their difference in velocity as they move through the column. Increasing column length can significantly increase resolution. By stacking columns end to end the length to diameter (L to D) ratio is increased so that no major changes to the media and solvent system are necessary. Often this increased L to D is sufficient to provide successful separation of difficult mixtures due to close compounds retention time that is not obtained on a single column. The data illustrates the linear relationship between of resolution and overall column length.

Columns: SepaFlash® silica flash columns, 25 g
Item number: SW-5102-025
Sample: Acetophenone and P-Methoxyacetophenone
Mobile phase: 80% hexane and 20% ethyl acetate
Flow Rate: 20 mL/min
Sample Size:

One 25g	0.25 mL
Two 25g stacked	0.50 mL
Three 25g stacked	0.75 mL
Four 25g stacked	1.00 mL
Five 25g stacked	1.25 mL

WaveLength: 254 nm

Observed Chromatographic Parameters:

Column Size	t_{R1} (Peak 1)	t_{R2} (Peak 2)	N	Rs	T
One 25g	3.7 min	6.5 min	1075	4.42	1.11
Two 25g	7.3 min	13.1 min	1770	6.02	1.10
Three 25g	11.0 min	19.8 min	1832	6.41	1.23
Four 25g	15.1 min	27.0 min	1902	6.51	1.20
Five 25g	19.0 min	34.2 min	2183	7.13	1.29

Table 1: Experimental Parameters and results

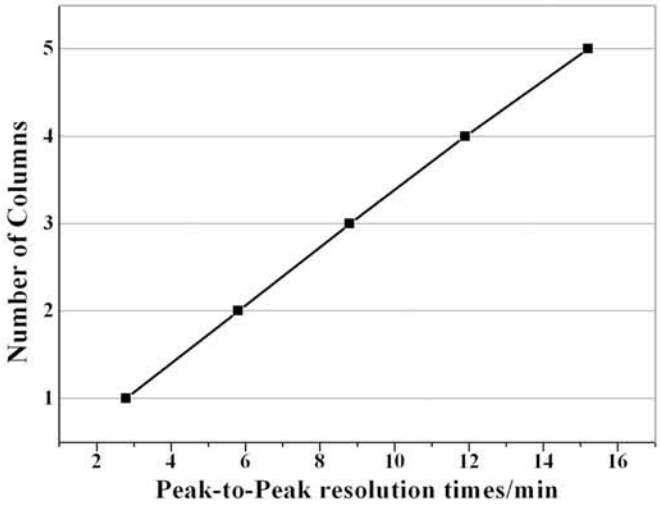


Figure 1: Linear relationship between number of stacked columns and peak-to-peak resolution times

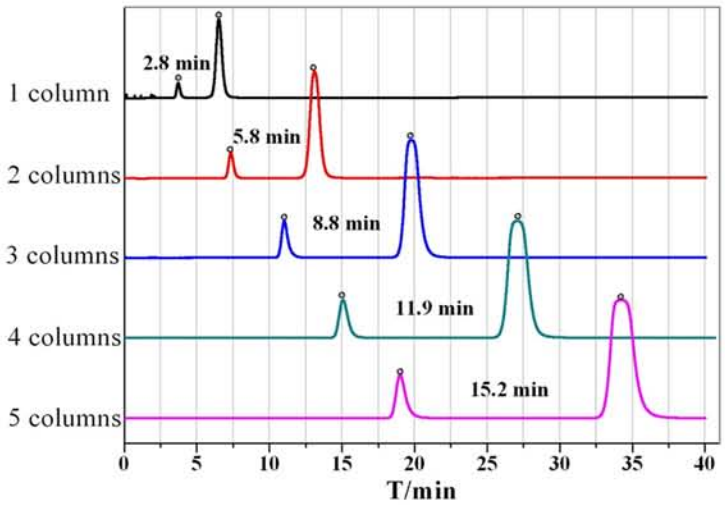


Figure 2: Peak-to-peak resolution of multiple stacked 25g columns

Bonded Series – 13 kinds of bonded silica

Bonded series flash columns are manufactured with the same cartridges as the HP series but are packed with ultra-pure, high-quality, high-efficiency bonded silica. This series offers a wide variety of sorbents to better satisfy the requirements for different users.

※ Available in a wide variety of specifications

※ Pressure rated up to 400 psi

※ Economical substitute for preparative HPLC

※ Meet a variety of needs for specific purifications

Irregular Family	● Irregular C18, 40–63 μm, 60 Å ● Irregular C18, 40–63 μm, 90 Å ● Irregular NH2, 40–63 μm, 60 Å
Hemispherical Family	● Hemispherical C18, 50 μm, 90 Å
Spherical Family	● Spherical C18, 40–60 μm, 120 Å ● Spherical C18, 30–50 μm, 120 Å ● Spherical C18, 40–75 μm, 100 Å ● Spherical C18, 20–45 μm, 100 Å ● Spherical C18, 15 μm, 100 Å ● Spherical CN, 20–45 μm, 100 Å ● Spherical C4, 20–45 μm, 100 Å ● Spherical C8, 20–45 μm, 100 Å ● Spherical Diol, 20–45 μm, 100 Å
Notes: The detailed specification please sees the ordering information.	

Ultra-pure irregular C18, 40-63 μm, 60 Å

(Carbon content 17%, End-capping, Surface area 500 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5201-004-IR	5.9 g	5.9 mg–118 mg	2	10–20	113.8	12.4	400/27.5
SW-5201-012-IR	23 g	23mg–0.46g	1	15–30	134.8	21.4	400/27.5
SW-5201-025-IR	38 g	38 mg–0.76 g	1	15–30	184.0	21.4	400/27.5
SW-5201-040-IR	55 g	55 mg–1.1 g	1	20–40	184.4	26.7	400/27.5
SW-5201-080-IR	122 g	122 mg–2.5 g	1	30–60	257.4	31.2	350/24.0
SW-5201-120-IR	180 g	180 mg–3.6 g	1	40–80	261.5	38.6	300/20.7
SW-5201-220-IR	340 g	340 mg–6.8 g	1	50–100	223.5	61.4	300/20.7
SW-5201-330-IR	475 g	475 mg–9.5 g	1	50–100	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Ultra-pure irregular C18, 40-63 μm, 90 Å

(Carbon content 15%, End-capping, Surface area 400 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5211-004-IR	5.2 g	5.2 mg–104 mg	2	10–20	113.8	12.4	400/27.5
SW-5211-012-IR	20 g	20 mg–0.40 g	1	15–30	134.8	21.4	400/27.5
SW-5211-025-IR	33 g	33 mg–0.66 g	1	15–30	184.0	21.4	400/27.5
SW-5211-040-IR	48 g	48 mg–0.96 g	1	20–40	184.4	26.7	400/27.5
SW-5211-080-IR	105 g	105 mg–2.1 g	1	30–60	257.4	31.2	350/24.0
SW-5211-120-IR	155 g	155 mg–3.1 g	1	40–80	261.5	38.6	300/20.7
SW-5211-220-IR	295 g	295 mg–5.9 g	1	50–100	223.5	61.4	300/20.7
SW-5211-330-IR	420 g	420 mg–8.4 g	1	50–100	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Ultra-pure hemispherical C18, 50 μm, 90 Å

(Carbon content 17%, End-capping, Surface area 400 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5211-004-SS	5 g	5 mg–100 mg	2	10–20	113.8	12.4	400/27.5
SW-5211-012-SS	19 g	19 mg–0.38 g	1	15–30	134.8	21.4	400/27.5
SW-5211-025-SS	32 g	32 mg–0.64 g	1	15–30	184.0	21.4	400/27.5
SW-5211-040-SS	46 g	46 mg–0.92 g	1	20–40	184.4	26.7	400/27.5
SW-5211-080-SS	100 g	100 mg–2.0 g	1	30–60	257.4	31.2	350/24.0
SW-5211-120-SS	150 g	150 mg–3.0 g	1	40–80	261.5	38.6	300/20.7
SW-5211-220-SS	280 g	280 mg–5.6 g	1	50–100	223.5	61.4	300/20.7
SW-5211-330-SS	395 g	395 mg–7.9 g	1	50–100	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Ultra-pure spherical C18, 40-60 μm, 120 Å

(Carbon content 17%, End-capping, Surface area 300 m^2/g, Loading capacity 0.1–1.5%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5231-004-SP	4.5 g	4.5 mg–68 mg	2	10–20	113.8	12.4	400/27.5
SW-5231-012-SP	18 g	18 mg–0.27 g	1	15–30	134.8	21.4	400/27.5
SW-5231-025-SP	28 g	28 mg–0.42 g	1	15–30	184.0	21.4	400/27.5
SW-5231-040-SP	40 g	40 mg–0.60 g	1	20–40	184.4	26.7	400/27.5
SW-5231-080-SP	90 g	90 mg–1.35 g	1	30–60	257.4	31.2	350/24.0
SW-5231-120-SP	130 g	130 mg–1.95 g	1	40–80	261.5	38.6	300/20.7
SW-5231-220-SP	245 g	245 mg–3.68 g	1	50–100	223.5	61.4	300/20.7
SW-5231-330-SP	350 g	350 mg–5.25 g	1	50–100	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical C18, 30-50 μm, 120 Å

(Carbon content 17%, End-capping, Surface area 300 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5232-004-SP	4.3 g	4.3 mg–86 mg	2	5–15	113.8	12.4	400/27.5
SW-5232-012-SP	16 g	16 mg–0.32 g	1	10–25	134.8	21.4	400/27.5
SW-5232-025-SP	26 g	26 mg–0.52 g	1	10–25	184.0	21.4	400/27.5
SW-5232-040-SP	39 g	39 mg–0.78 g	1	15–30	184.4	26.7	400/27.5
SW-5232-080-SP	85 g	85 mg–1.7 g	1	20–50	257.4	31.2	350/24.0
SW-5232-120-SP	125 g	125 mg–2.5 g	1	30–60	261.5	38.6	300/20.7
SW-5232-220-SP	240 g	240 mg–4.8 g	1	40–80	223.5	61.4	300/20.7
SW-5232-330-SP	335 g	335 mg–6.7 g	1	40–80	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Ultra-pure spherical C18, 40-75 μm, 100 Å

(Carbon content 17%, End-capping, Surface area 300 m^2/g, Loading capacity 0.1–1.5%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5221-004-SP	4.6 g	4.6 mg–69 mg	2	10–20	113.8	12.4	400/27.5
SW-5221-012-SP	18 g	18 mg–0.27 g	1	15–30	134.8	21.4	400/27.5
SW-5221-025-SP	30 g	30 mg–0.45 g	1	15–30	184.0	21.4	400/27.5
SW-5221-040-SP	43 g	43 mg–0.65 g	1	20–40	184.4	26.7	400/27.5
SW-5221-080-SP	95 g	95 mg–1.43 g	1	30–60	257.4	31.2	350/24.0
SW-5221-120-SP	142 g	142 mg–2.13 g	1	40–80	261.5	38.6	300/20.7
SW-5221-220-SP	265 g	265 mg–3.98 g	1	50–100	223.5	61.4	300/20.7
SW-5221-330-SP	385 g	385 mg–5.78 g	1	50–100	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical C18, 20-45 μm, 100 Å

(Carbon content 17%, End-capping, Surface area 320 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5222-004-SP	5.4 g	5.4 mg–108 mg	2	5–15	113.8	12.4	400/27.5
SW-5222-012-SP	20 g	20 mg–0.40 g	1	10–25	134.8	21.4	400/27.5
SW-5222-025-SP	33 g	33 mg–0.66 g	1	10–25	184.0	21.4	400/27.5
SW-5222-040-SP	48 g	48 mg–0.96 g	1	15–30	184.4	26.7	400/27.5
SW-5222-080-SP	105 g	105 mg–2.1 g	1	20–50	257.4	31.2	350/24.0
SW-5222-120-SP	155 g	155 mg–3.1 g	1	30–60	261.5	38.6	300/20.7
SW-5222-220-SP	300 g	300 mg–6.0 g	1	40–80	223.5	61.4	300/20.7
SW-5222-330-SP	420 g	420 mg–8.4 g	1	40–80	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical C18, 15 μm, 100 Å

(Carbon content 17%, End-capping, Surface area 320 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5223-004-SP	5.4 g	5.4 mg–108 mg	2	5–15	113.8	12.4	400/27.5
SW-5223-012-SP	20 g	20 mg–0.40 g	1	10–25	134.8	21.4	400/27.5
SW-5223-025-SP	33 g	33 mg–0.66 g	1	10–25	184.0	21.4	400/27.5
SW-5223-040-SP	48 g	48 mg–0.96 g	1	15–30	184.4	26.7	400/27.5
SW-5223-080-SP	105 g	105 mg–2.1 g	1	20–50	257.4	31.2	350/24.0
SW-5223-120-SP	155 g	155 mg–3.1 g	1	30–60	261.5	38.6	300/20.7
SW-5223-220-SP	290 g	290 mg–5.8 g	1	40–80	223.5	61.4	300/20.7
SW-5223-330-SP	410 g	410 mg–8.2 g	1	40–80	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical CN, 20-45 μm, 100 Å

(Carbon content 5.5%, End-capping, Surface area 320 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5322-004-SP	5.4 g	5.4 mg–108 mg	2	5–15	113.8	12.4	400/27.5
SW-5322-012-SP	20 g	20 mg–0.40 g	1	10–25	134.8	21.4	400/27.5
SW-5322-025-SP	33 g	33 mg–0.66 g	1	10–25	184.0	21.4	400/27.5
SW-5322-040-SP	48 g	48 mg–0.96 g	1	15–30	184.4	26.7	400/27.5
SW-5322-080-SP	105 g	105 mg–2.1 g	1	20–50	257.4	31.2	350/24.0
SW-5322-120-SP	155 g	155 mg–3.1 g	1	30–60	261.5	38.6	300/20.7
SW-5322-220-SP	300 g	300 mg–6.0 g	1	40–80	223.5	61.4	300/20.7
SW-5322-330-SP	420 g	420 mg–8.4 g	1	40–80	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical C4, 20-45 μm, 100 Å

(Carbon content 5.8%, End-capping, Surface area 320 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5422-004-SP	5.4 g	5.4 mg–108 mg	2	5–15	113.8	12.4	400/27.5
SW-5422-012-SP	20 g	20 mg–0.40 g	1	10–25	134.8	21.4	400/27.5
SW-5422-025-SP	33 g	33 mg–0.66 g	1	10–25	184.0	21.4	400/27.5
SW-5422-040-SP	48 g	48 mg–0.96 g	1	15–30	184.4	26.7	400/27.5
SW-5422-080-SP	105 g	105 mg–2.1 g	1	20–50	257.4	31.2	350/24.0
SW-5422-120-SP	155 g	155 mg–3.1 g	1	30–60	261.5	38.6	300/20.7
SW-5422-220-SP	300 g	300 mg–6.0 g	1	40–80	223.5	61.4	300/20.7
SW-5422-330-SP	420 g	420 mg–8.4 g	1	40–80	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical C8, 20-45 μm, 100 Å

(Carbon content 7%, End-capping, Surface area 320 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5822-004-SP	5.4 g	5.4 mg–108 mg	2	5–15	113.8	12.4	400/27.5
SW-5822-012-SP	20 g	20 mg–0.40 g	1	10–25	134.8	21.4	400/27.5
SW-5822-025-SP	33 g	33 mg–0.66 g	1	10–25	184.0	21.4	400/27.5
SW-5822-040-SP	48 g	48 mg–0.96 g	1	15–30	184.4	26.7	400/27.5
SW-5822-080-SP	105 g	105 mg–2.1 g	1	20–50	257.4	31.2	350/24.0
SW-5822-120-SP	155 g	155 mg–3.1 g	1	30–60	261.5	38.6	300/20.7
SW-5822-220-SP	300 g	300 mg–6.0 g	1	40–80	223.5	61.4	300/20.7
SW-5822-330-SP	420 g	420 mg–8.4 g	1	40–80	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

High-efficiency spherical Diol, 20-45 μm, 100 Å

(Carbon content 5%, End-capping, Surface area 320 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5922-004-SP	5.4 g	5.4 mg–108 mg	2	5–15	113.8	12.4	400/27.5
SW-5922-012-SP	20 g	20 mg–0.40 g	1	10–25	134.8	21.4	400/27.5
SW-5922-025-SP	33 g	33 mg–0.66 g	1	10–25	184.0	21.4	400/27.5
SW-5922-040-SP	48 g	48 mg–0.96 g	1	15–30	184.4	26.7	400/27.5
SW-5922-080-SP	105 g	105 mg–2.1 g	1	20–50	257.4	31.2	350/24.0
SW-5922-120-SP	155 g	155 mg–3.1 g	1	30–60	261.5	38.6	300/20.7
SW-5922-220-SP	300 g	300 mg–6.0 g	1	40–80	223.5	61.4	300/20.7
SW-5922-330-SP	420 g	420 mg–8.4 g	1	40–80	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Ultra-pure irregular NH_2, 40-63 μm, 60 Å

(Amino content 1.3 mmol/g, End-capping, Surface area 500 m^2/g, Loading capacity 0.1–2%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SW-5501-004-IR	5.9 g	5.9 mg–118 mg	2	10–20	113.8	12.4	400/27.5
SW-5501-012-IR	23 g	23 mg–0.46 g	1	15–30	134.8	21.4	400/27.5
SW-5501-025-IR	38 g	38 mg–0.76 g	1	15–30	184.0	21.4	400/27.5
SW-5501-040-IR	55 g	55 mg–1.1 g	1	20–40	184.4	26.7	400/27.5
SW-5501-080-IR	122 g	122 mg–2.5 g	1	30–60	257.4	31.2	350/24.0
SW-5501-120-IR	180 g	180 mg–3.6 g	1	40–80	261.5	38.6	300/20.7
SW-5501-220-IR	340 g	340 mg–6.8 g	1	50–100	223.5	61.4	300/20.7
SW-5501-330-IR	475 g	475 mg–9.5 g	1	50–100	280.2	61.4	250/17.2

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

iLOK® Series

SepaFlash® iLOK® flash cartridges offer users convenience for manual assembly, allowing for a flexible sample loading method: solid load and direct liquid injection. The series is offered in two formats: iLOK® flash cartridge pre-packed with ultra-pure silica gel (40–63 μm, 60 Å) and iLOK® empty solid load cartridge with screw cap, frits, disbursing unit, O-ring and end tips.

※ Innovative column design convenient for manual assembly and column stacking
※ Available in wide range of cartridge sizes for any situation
※ Reinforced cartridge body with maximum operating pressure up to 200 psi

iLOK® Flash Cartridges (pre-packed, ultra-pure irregular silica, 40−63 μm, 60 Å):

(Surface area 500 m²/g, pH 6.5–7.5, Loading capacity 0.1–10%)

Item Number	Column Size	Sample Size	Units/Box	Flow Rate (mL/min)	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SD-5101-004	4 g	4 mg–0.4 g	20	15–40	115.1	12.8	200/13.8
SD-5101-012	12 g	12 mg–1.2 g	18	30–60	137.8	21.4	200/13.8
SD-5101-025	25 g	25 mg–2.5 g	12	30–60	188.2	21.6	200/13.8
SD-5101-040	40 g	40 mg–4.0 g	12	40–70	188.7	26.8	200/13.8
SD-5101-060	60 g	60 mg–6.0 g	12	60–150	173.3	37.0	200/13.8
SD-5101-080	80 g	80 mg–8.0 g	10	50–100	263.5	31.2	200/13.8
SD-5101-100	100 g	100 mg–10 g	6	80–220	146.6	60.4	150/10.3
SD-5101-120	120 g	120 mg–12 g	10	60–150	277.7	37.4	200/13.8
SD-5101-220	220 g	220 mg–22 g	6	80–220	218.5	60.4	150/10.3
SD-5101-330	330 g	330 mg–33 g	5	80–220	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

iLOK® Empty Solid Load Cartridges:

(iLOK® empty solid load cartridge with screw cap, frits, disbursing unit, O-ring and end tips)

Item Number	Description	Units/Box	Cartridge Length (mm)	Cartridge ID (mm)	Max. Pressure (psi/bar)
SD-0000-004	Empty solid load cartridge, 4 g	optional	115.1	12.8	200/13.8
SD-0000-012	Empty solid load cartridge, 12 g	optional	137.8	21.4	200/13.8
SD-0000-025	Empty solid load cartridge, 25 g	optional	188.2	21.6	200/13.8

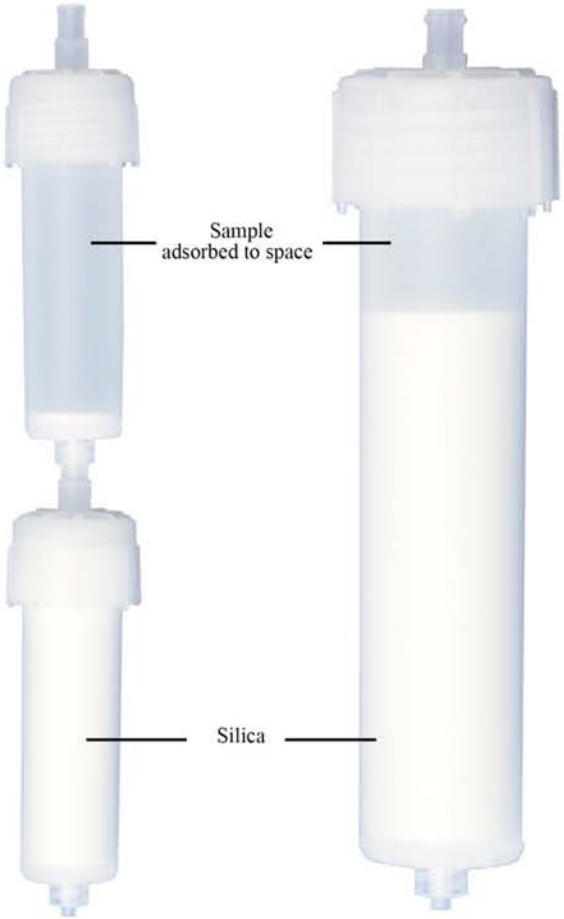
SD-0000-040	Empty solid load cartridge, 40 g	optional	188.7	26.8	200/13.8
SD-0000-060	Empty solid load cartridge, 60 g	optional	173.3	37.0	200/13.8
SD-0000-080	Empty solid load cartridge, 80 g	optional	263.5	31.2	200/13.8
SD-0000-100	Empty solid load cartridge, 100 g	optional	146.6	60.4	150/10.3
SD-0000-120	Empty solid load cartridge, 120 g	optional	277.7	37.4	200/13.8
SD-0000-220	Empty solid load cartridge, 220 g	optional	218.5	60.4	150/10.3
SD-0000-330	Empty solid load cartridge, 330 g	optional	271.6	60.6	150/10.3

※ Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.

Solutions for solid loading

Solid sample loading is a useful technique to load sample to be purified onto a column, particularly in the case of low-solubility samples. On this occasion, iLOK® flash cartridge is a very suitable choice.

The sample is dissolved in a suitable solvent and absorbed onto diatomaceous earth. After removal of the residual solvent, the adsorbent is put on top of partly filled cartridge or into an empty cartridge.



Optional accessories and bulk silica gel

iLOK® empty solid load cartridge with screw cap, frits, disbursing unit, O-ring and end tips with optional bulk silica gel.

SepaFlash® High Performance Silica TLC Plates

SepaFlash® high performance silica TLC plates (HPTLC) are made of high-quality silica gel, which exactly matches the sorbents used in SepaFlash® flash columns. This combination provides the user with confidence and increased reproducibility in method development. The plates are coated by the modern equipments, and offer highly increased sensitivity and faster analysis.

Particle Size Distribution	6-10 μm
Layer Thickness	200 μm, glass backed
pH Value	6.2-6.8
Adhesion Strength	Can mark with pencil and cut with glass cutter.
Anti-interference Ability	Resistance to concentrated sulfuric acid or potassium permanganate.
Separation Effects	Effective separation of standard three dye mixture.

Notes: Storage of HPTLC plates must keep away from moisture and pollutants. As preferred, use HPTLC plates after activation.

Item Number	Description	Units/Box
TL-8103-2101	High performance silica TLC plate, glass backed, F254, 25*80 mm	320
TL-8103-2106	High performance silica TLC plate, glass backed, F254, 200*200 mm	20

Optimizing Flash Chromatography Purification

Thin Layer Chromatography (TLC) is often performed on crude reaction mixtures to determine optimal conditions for purification by flash chromatography.

(1) Solvent Composition Selection and Strength Adjustment

The optimal solvent composition can be achieved by using different binary eluent which may be posses same solvent strength but have different R_f value for the same pair of compounds. After the optimal solvent composition was found, the solvent strength had to be optimized. The optimal eluent strength is established by adjust the different ratio to keep the R_f value in the range of 0.15 to 0.4.

(2) Band Tailing Improvement

The band tailing can be improved by adding more polar solvent into the solvent system or slightly changing the pH of the system, until the spots on the TLC plate become flat shape and no longer strip-shaped.

(3) Column Selection and Loading Capacity

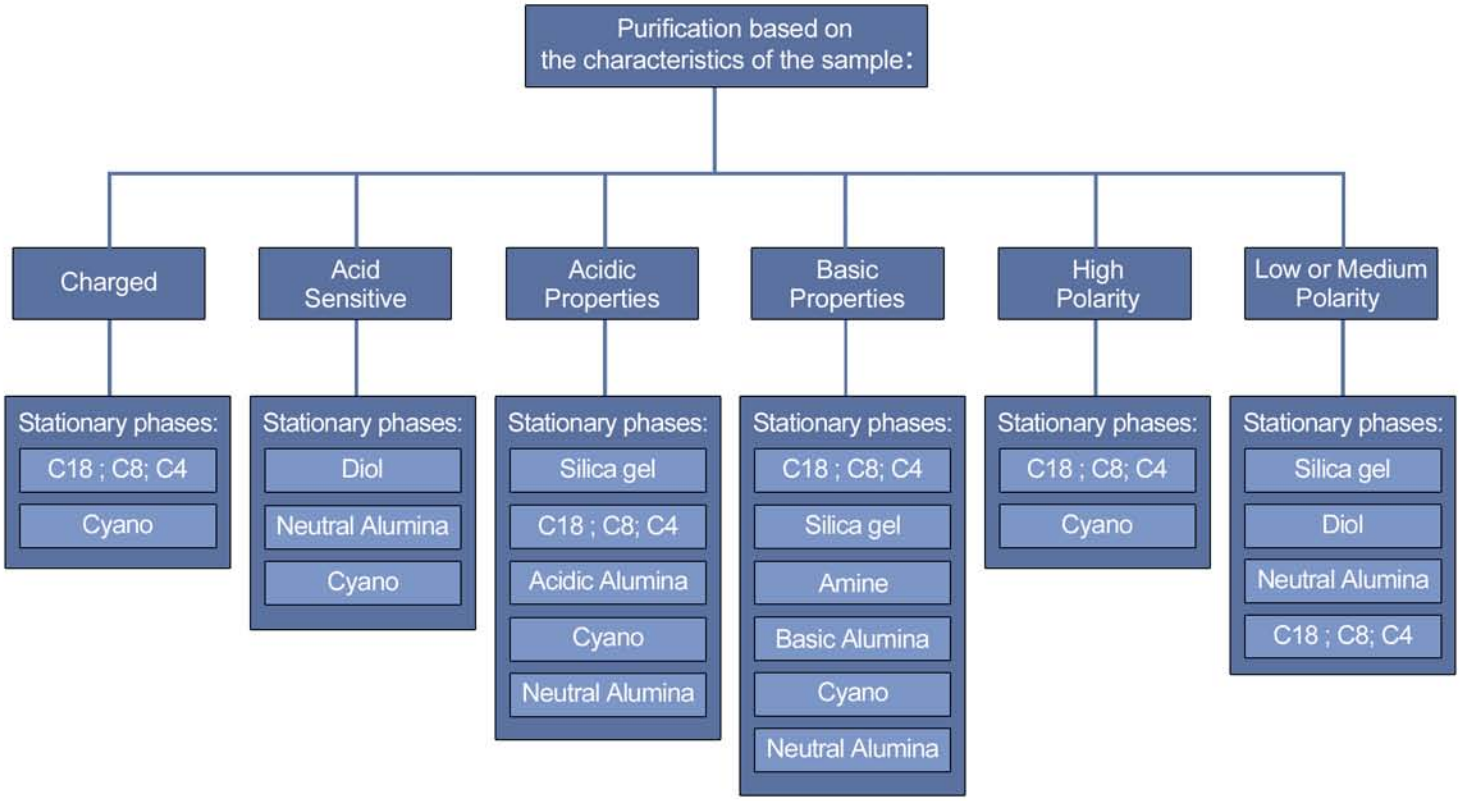
The column selection can be determined by the ratio of R_f value of border upon compounds. Smaller R_f with larger ratio of R_f value means a short column or larger sample size is preferred.

SepaFlash® Flash Columns Product List

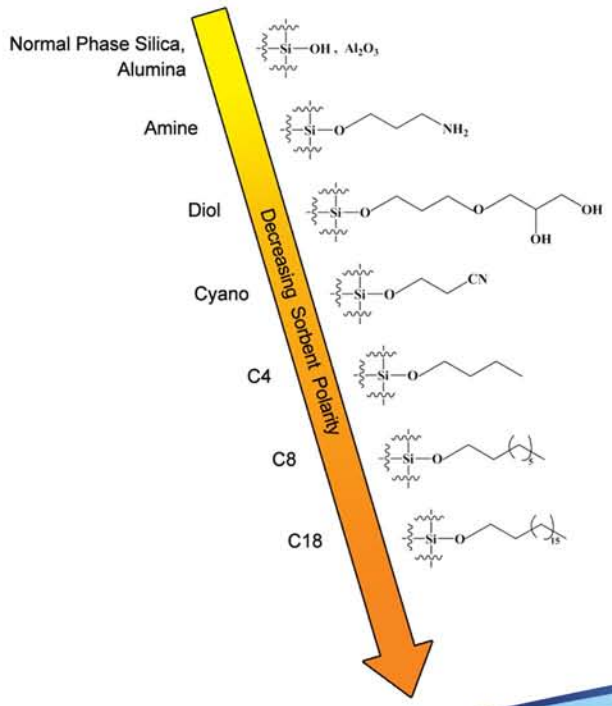
Products Characteristics		Standard Series (Max. Pressure 300 psi)	iLOK Series(pre-packed) (Max. Pressure 200 psi)	E Series (Max. Pressure 300 psi)	HP Series (Max. Pressure 400 psi)	Bonded Series (Max. Pressure 400 psi)
Media packed	Irregular silica (40-63 μm, 60 Å)	4 g–1600 g	4 g–330 g	4 g–1600 g	4 g–330 g	/
	Irregular silica (25-40 μm, 60 Å)	4 g–330 g	/	/	4 g–330 g	/
	Spherical silica (40-75 μm, 70 Å)	/	/	/	4 g–330 g	/
	Spherical silica (20-45 μm, 70 Å)	/	/	/	4 g–330 g	/
	Alumina (50-75 μm)	/	/	8 g–3200 g	/	/
Bonded phase packed	C18	/	/	/	/	5.4 g–420 g
	C8	/	/	/	/	5.4 g–420 g
	C4	/	/	/	/	5.4 g–420 g
	CN	/	/	/	/	5.4 g–420 g
	Diol	/	/	/	/	5.4 g–420 g
	NH2	/	/	/	/	5.9 g–475 g
Open top (solid load)		NO	YES	NO	NO	NO
Compatibility		Compatible with all flash chromatography systems, for example ISCO, Biotage, Grace, etc.				

SepaFlash® Flash Column Sorbent Selection Guide

The following chart is designed to serve as a guide for the selection of the appropriate sorbent based on the characteristics of the sample to be purified.



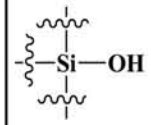
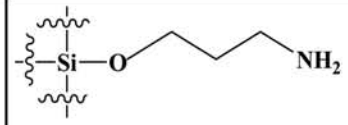
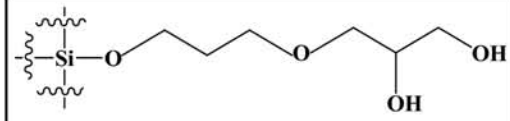
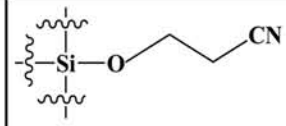
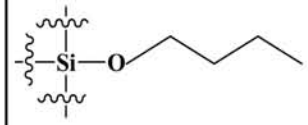
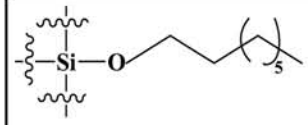
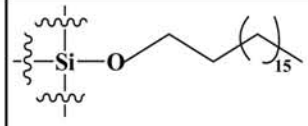
Stationary Phase Polarity



Compatible with all Flash Chromatography Systems

SepaFlash®

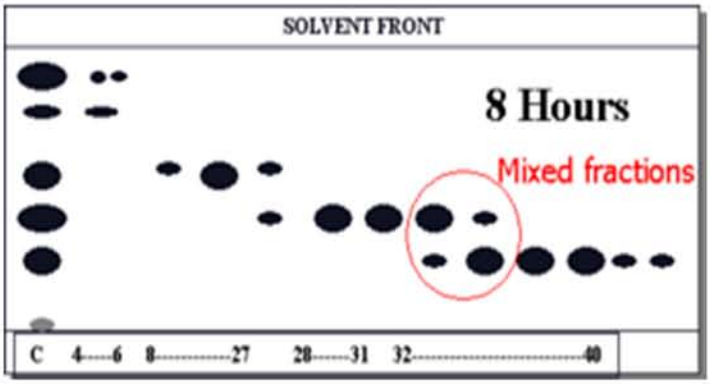
Silica-based Stationary Phase Information Table

Sorbent	Structure	characteristics	Typical Applications	Storage Conditions
Silica		Irregular, 40-63 µm	Most popular sorbent for day-to-day use for the purification of non-ionic polar organic compounds.	Single use recommended.
		Spherical, 40-75 µm		
		Irregular, 25-40 µm	High performance sorbent for difficult separations (isomers); Higher loading capacity.	Single use recommended.
		Spherical, 20-45 µm		
Amine		Irregular, 40-63 µm Endcapping: Yes Amino content: 1.3 mmol/g	Good alternative for normal phase purification of compounds with basic properties, which would normally have to be purified by reversed phase.	Flush the cartridge with 3 column volumes of 80% acetonitrile in water.
Diol		Spherical, 20-45 µm Endcapping: Yes Carbon content: 5.0%	Good alternative for difficult separation of low to medium polarity samples. Offers a better retention time compared to normal phase.	Flush the cartridge with 3 column volumes of 80% acetonitrile in water.
Cyano		Spherical, 20-45 µm Endcapping: Yes Carbon content: 5.5%	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 cyano group offers alternative selectivities.	Flush the cartridge with 3 column volumes of 80% acetonitrile in water or 80% methanol in water.
C4		Spherical, 20-45 µm Endcapping: Yes Carbon content: 5.8%	Reversed-phase matrix can provide less retention of non-polar compounds than C18 and C8 and is useful in ion-pairing chromatography. Used to separate large biomolecules.	Flush the cartridge with 3 column volumes of 80% acetonitrile in water or 80% methanol in water.
C8		Spherical, 20-45 µm Endcapping: Yes Carbon content: 7.0%	Reversed-phase matrix with a moderate degree of hydrophobility that works well for separating a wide range of compounds. May be used as replacement of C18 when shorter retention times are desired or required.	Flush the cartridge with 3 column volumes of 80% acetonitrile in water or 80% methanol in water.
C18		Spherical or Irregular Endcapping: Yes Carbon content: 17%	Indicated for the purification of medium to high polarity compounds, they provide reproducible purification without the complexity and cost of preparative HPLC.	Flush the cartridge with 3 column volumes of 80% acetonitrile in water or 80% methanol in water.

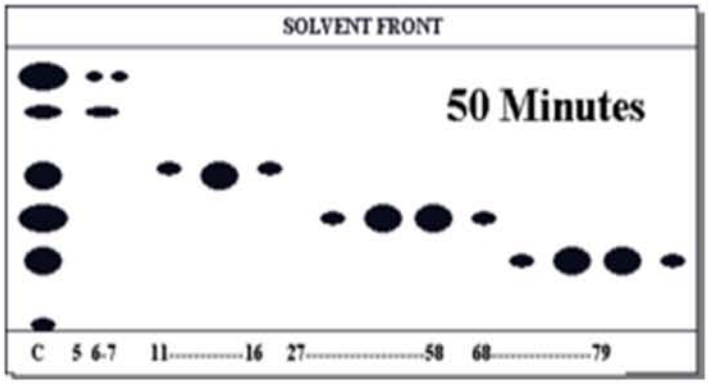
Advantages of Using SepaFlash® Flash Columns

Compared with traditional separation methods, SepaFlash® flash columns have the following advantages:

※ Using SepaFlash® flash columns significantly reduces the separation and purification times when compared to traditional glass columns – see example:



5.0 x 10cm (90g) Glass Column



4.0 x 15cm (90g) Flash Column

※ The separation and purification costs in time, apparatus and materials will be significantly reduced when compared with traditional flash chromatography.

※ Pre-packed SepaFlash® flash columns greatly reduce the risks to human health and environment.

Tips for Using SepaFlash® Chromatography Products

※ SepaFlash® silica flash columns are disposable and for single use, but with proper handling, SepaFlash® silica cartridges can be reused without sacrificing performance. For multiple usages, simply air dry the flash column using compressed air and store the column in a sealed bag.

※ SepaFlash® alumina flash columns are useful when the samples are sensitive and prone to degradation on silica gel.

※ SepaFlash® bonded silica flash columns offer a wide variety of sorbents to better satisfy the requirements for different users, and this series can be used multiple times under the correct preservation conditions.

※ Solid sample loading is a useful technique to load sample to be purified onto a column, particularly in the case of low-solubility samples. On this occasion, iLOK® flash cartridge is a very suitable choice.

※ For safety reasons, do not operate the flash column above the maximum pressure printed on the column body.

※ For optimum use of the flash column, please use the eluents which have been filtered through a 0.45 μm filter membrane to remove any impurities.

※ Storage of HPTLC plates must keep away from moisture and pollutants. As preferred, use HPTLC plates after activation.