

- Excellent column efficiency.
- Long lifetime and column-to-column reproducibility.
- Broad pH range from 0.5 to 12.
- Compatibility with 100% aqueous and organic mobile phases.
- High surface coverage presenting no bleeding for LC-MS applications.



SiliCycle has been manufacturing HPLC columns for more than 15 years and currently offers more than 40 different chromatographic phases. Our R&D facilities work to continually enhance our portfolio to suit our customer's requirements and offer unique and powerful new products.

Both our raw material and finished HPLC products are QC-validated in our ISO 9001-2008-registered manufacturing facilities. As with all SiliCycle products, manufacturing is done following strict SOPs in order to offer exceptional column performance, peak symmetry and lot-to-lot reproducibility.

SiliCycle's unique sol-gel process technology, used to produce all our chromatographic phases, allows us to offer complete silica-based solutions to HPLC end-users, whether these require use under a wide range of pH values, 100% aqueous or organic mobile phases or availability of low bleed material for LC-MS applications. We have the solution for you.

The SiliaChrom portfolio ranges from reversed-phase to normal phase columns for analysis of acidic, neutral and basic compounds, SEC products for protein and peptide analysis, columns for biochromatography of large molecules and SFC columns for API separation. An incredibly wide variety of column dimensions, particle and pore sizes are available to accommodate the vast majority of your applications.

SiliaChrom Plus Columns for high reproducibility

Years of research and development have led to the release of this new proprietary silica-based material for challenging separations requiring high column performance and resolution, enhanced chromatographic performance, lot-to-lot reproducibility and extended column lifetime.

Reduced silanol activity, high surface area and lot-to-lot controlled surface coverage have indeed led to exceptional silica. The resulting HPLC columns are extremely reliable, offering high performance and peak symmetry to QA/QC laboratories and research centers. This new material is rapidly becoming an extremely popular packing material for scientists all over the world facing challenging separations on a regular basis.

In a nutshell, the SiliaChrom Plus series offers robust columns for your everyday work.



SiliCycle, Experts in HPLC Column Packing

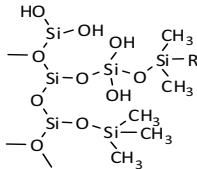
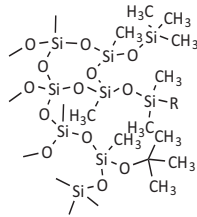
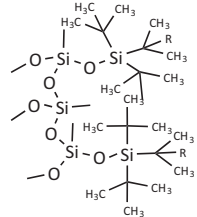


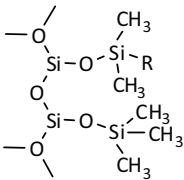
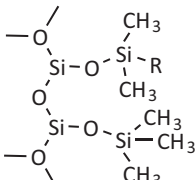
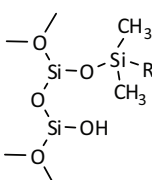
Superior HPLC columns can only be produced with excellent materials and packing techniques. SiliaChrom columns are made from extremely pure silica and are well known for their high efficiency and resolution capacity. Based on spherical, totally porous silica, SiliaChrom columns provide enhanced chemical and mechanical stability as well as very high loading capacity and full end-capping.

All SiliaChrom and SiliaChrom Plus columns are packed using our proprietary slurry packing process in order to achieve column-to-column reproducibility and guarantee above-average selectivity, resolution, performance, peak symmetry and lifetime when used according to the phase and material specifications.

Column Packing Reproducibility

SiliCycle is recognized for its strong expertise in column packing technology. All SiliaChrom columns are packed using a consistent methodology to achieve an extremely stable and uniform column bed, leading to high column lifetime and column-to-column reproducibility.

HPLC Family Overview			
SiliaChrom Plus	SiliaChrom dt	SiliaChrom XT & XT Fidelity	SiliaChrom SB
For your everyday separations	100% aqueous compatible	For high pH conditions	For extremely low pH conditions
<ul style="list-style-type: none"> C18 & C18-300 (USP L1) C8 & C8-300 (USP L7) C4 & C4-300 (USP L26) Amino (USP L8) Cyano (USP L10) Diol (USP L20) PFP (USP L43) Phenyl (USP L11) Silica (USP L3) SAX (USP L14) SCX (USP L9) Proprietary Structure	<ul style="list-style-type: none"> C18 (USP L1) C8 (USP L7) Silica (USP L3) 	<ul style="list-style-type: none"> C18 (USP L1) 	<ul style="list-style-type: none"> C18 & C18-300 (USP L1) C8 & C8-300 (USP L7) 
Main Characteristics			
<ul style="list-style-type: none"> Wide range of selectivities Ultra-pure metal-free silica (99.9999% purity) High column performance and resolution Enhanced batch-to-batch reproducibility Extended column lifetime Reduced silanol activity, better peak symmetry Extremely low bleeding for LC-MS applications Easy scale-up to preparative formats 	<ul style="list-style-type: none"> Ultra-pure metal-free silica (99.9999% purity) High sensitivity for LC-MS Stable from 100% aqueous to 100% organic mobile phase Universal: acidic, neutral and basic analysis Enhanced retention of hydrophilic molecules Inertness for acidic and basic analytes 	<ul style="list-style-type: none"> Coated with a monomeric prepolymer for excellent durability at high pH Ideal for basic compounds and metabolic studies 	<ul style="list-style-type: none"> Protecting group that shields the silica surface for extremely low pH stability Extremely low bleeding for LC-MS applications under acidic conditions
Particle Size			
• 3 - 10 µm	• 2.5 - 10 µm	• 3 - 10 µm	• 3 - 10 µm
Pore Size and Typical Surface Area			
<ul style="list-style-type: none"> 100 Å / 370 - 430 m²/g: C18, C8, C4, Amino, Cyano, Diol, Phenyl & Silica 120 Å / 320 - 360 m²/g: PFP 300 Å / 80 - 120 m²/g: C18, C8, C4 & SAX 	• 100 Å / 410 - 440 m ² /g	<ul style="list-style-type: none"> 100 Å / 380 m²/g: XT Fidelity 150 Å / 200 m²/g: XT 	<ul style="list-style-type: none"> 150 Å / 200 m²/g 300 Å / 80 m²/g
Carbon Load			
<ul style="list-style-type: none"> C18: 15% (100 Å), 8% (300 Å) C8: 8% (100 Å), 5% (300 Å) C4: 6% (100 Å), 3% (300 Å) Amino: 8% Cyano & Diol: 7% Phenyl: 11% PFP: 9% SCX & SAX : proprietary information 	<ul style="list-style-type: none"> C18: 18% C8: 14% 	<ul style="list-style-type: none"> XT: 15% XT Fidelity: 21% 	<ul style="list-style-type: none"> C18: 12% (150 Å), 5% (300 Å) C8: 7% (150 Å), 3% (300 Å)
Endcapping			
• Proprietary endcapping	• Endcapped	• Double endcapped	• Proprietary endcapping
pH Stability			
• 2 - 8	• 1.5 - 9	• 1.5 - 12	<ul style="list-style-type: none"> 0.5 - 7.5: C18 (150 Å & 300 Å) 1 - 7.5: C8 (150 Å & 300 Å)
Temperature Stability			
• 60°C	• 60°C	• 60°C	• 60°C
Pressure Stability			
<ul style="list-style-type: none"> 100 Å: 5,500 psi 300 Å: 4,000 psi 	• 5,000 psi	• 5,000 psi	• 4,500 psi

HPLC Family Overview			
SiliaChrom XDB	SiliaChrom XDB1 & XDB2	SiliaChrom HILIC	SiliaChrom GF
For large hydrophobic molecules	For your QC analyses	For highly polar analytes	For biomolecules separation
<ul style="list-style-type: none"> C18 (USP L1) C8 (USP L7) Silica (USP L3) 	<ul style="list-style-type: none"> C18 & C18-300 (USP L1) C8 & C8-300 (USP L7) C1 & C1-300 (USP L13) 	<ul style="list-style-type: none"> HILIC & HILIC-300 (Urea) 	<ul style="list-style-type: none"> GF & GF-300 GF AMIDE & GF AMIDE-300
Main Characteristics			
<ul style="list-style-type: none"> High loading capacity Low surface area, allowing shorter retention times for large hydrophobic molecules Ideal for separation of barbiturates, fat-soluble vitamins, fatty acids and steroids 	<ul style="list-style-type: none"> High loading capacity Great column-to-column and batch-to-batch reproducibility Good peak shape for acidic, neutral and basic analytes Stronger separation power for isomers 	<ul style="list-style-type: none"> Unique chemistry (urea) Compatible with reversed-phase and normal-phase conditions Rapid equilibration Enhanced sensitivity in mass spectrometry Approved phase for SFC 	<ul style="list-style-type: none"> Separation and determination of peptides, proteins and nucleic acids Two exclusion ranges: from 5,000 to 100,000 Dalton (100 Å) and from 50,000 to 1,000,000 Dalton (300 Å)
Particle Size			
<ul style="list-style-type: none"> 5 µm 	<ul style="list-style-type: none"> 3 - 10 µm 	<ul style="list-style-type: none"> 3 - 10 µm 	<ul style="list-style-type: none"> 5 - 10 µm
Pore Size and Typical Surface Area			
<ul style="list-style-type: none"> 150 Å / 200 m²/g 	<ul style="list-style-type: none"> 100 Å / 380 - 400 m²/g 300 Å / 80 m²/g 	<ul style="list-style-type: none"> 100 Å / 380 m²/g 300 Å / 80 m²/g 	<ul style="list-style-type: none"> 100 Å / 340 m²/g 300 Å / 80 m²/g
Carbon Load			
<ul style="list-style-type: none"> C18: 15% C8: 8% 	<ul style="list-style-type: none"> C18: 22% (XDB1-100 Å), 18% (XDB2-100 Å), 8% (300 Å) C8: 14% (100 Å), 4% (300 Å) C1: 3% (100 Å), 1% (300 Å) 	<ul style="list-style-type: none"> 100 Å: 8% 300 Å: 2.5% 	<ul style="list-style-type: none"> 100 Å: 5% 300 Å: 1%
Endcapping			
<ul style="list-style-type: none"> Double endcapped 	<ul style="list-style-type: none"> Double endcapped 	<ul style="list-style-type: none"> Non endcapped 	<ul style="list-style-type: none"> Endcapped
pH Stability			
<ul style="list-style-type: none"> 1.5 - 9 	<ul style="list-style-type: none"> 1.5 - 10: XDB1 C18 1.5 - 9: XDB1 C18-300 & XDB2 C18 1.5 - 8.5: C8, C8-300, C1 & C1-300 	<ul style="list-style-type: none"> 2 - 8 	<ul style="list-style-type: none"> 2 - 8
Temperature Stability			
<ul style="list-style-type: none"> 60°C 	<ul style="list-style-type: none"> 60°C 	<ul style="list-style-type: none"> 60°C 	<ul style="list-style-type: none"> GF: 45°C GF Amide: 60°C
Pressure Stability			
<ul style="list-style-type: none"> 5,500 psi 	<ul style="list-style-type: none"> 5,500 psi 	<ul style="list-style-type: none"> 5,000 psi 	<ul style="list-style-type: none"> 4,000 psi

As a recognized industry leader in the development, manufacturing and commercialization of innovative silica gel products, and with multi-ton manufacturing capability, SiliCycle® is your partner of choice for all your METAL REMOVAL, CATALYSIS, SYNTHESIS, and PURIFICATION requirements.

METAL & ORGANIC SCAVENGING



Removal of:

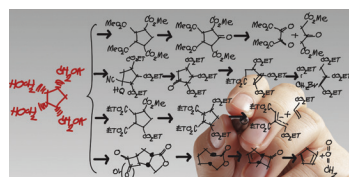
- Metals
- Electrophiles & Nucleophiles
- Potential Genotoxic Impurities (PGI)

CATALYSIS & SYNTHESIS



- Couplings (*Suzuki, Stille, Heck, ...*)
- Debenzylation & Hydrogenation
- Oxidation
- And Many More Reactions

ACIDS, BASES & REAGENTS



- Acids & Bases
- Amide Couplings
- Reductive Aminations
- Other Reactions

LOW PRESSURE CHROMATOGRAPHY



- Bulk Silica Gels (*Irregular & Spherical*)
- Bonded Phases
- TLC Plates
- Prepacked Flash Cartridges

SAMPLE PREPARATION



- SPE & Well Plates
- Micro-SPE Tips
- QuEChERS
- SPE Hardware & Manifold

HIGH PRESSURE CHROMATOGRAPHY



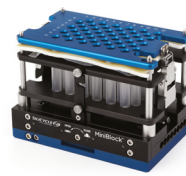
- Bulk Sorbents
- HPLC & UPLC Columns
- SEC & SFC Columns
- Guard Cartridges & Accessories

CONSUMABLES



- Vials & Caps
- Syringe Filters
- Membrane Filters

EQUIPMENTS



- Parallel Synthesis Synthesizer - MiniBlock & MiniBlock XT
- TLC Scanner
- Vacuum Manifold

DESICCANTS & OTHER BULK ABSORBENTS



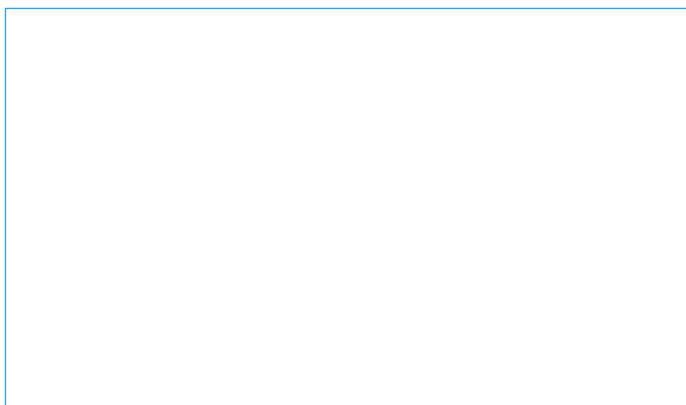
- Desiccant
- Activated Alumina
- Molecular Sieve

R&D SERVICES



- Scavenging Screening
- Method Development & Optimization
- Impurities Determination
- Custom Column Packing

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