



HICHROM

Chromatography Columns and Supplies

LC COLUMNS
Perkin Elmer Brownlee

Catalogue 9

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PERKIN ELMER



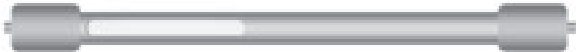


Brownlee™ MPLC Cartridge Columns

Perkin Elmer's Brownlee™ MPLC cartridge columns provide a range of options for HPLC. They are available in three lengths (3, 10 and 22cm) and two internal diameters (4.6 and 2.1mm). A specific cartridge holder (3, 10 or 22cm) is required for each cartridge length. The MPLC cartridge system allows direct coupling of an analytical and NewGuard cartridge without introduction of any dead volume (available for 10cm and 22cm cartridge column lengths). Changing cartridges is easy with the fingertight cartridge design which does not require any wrench-tightening of the holder or disconnecting of tubing from the LC system.

Brownlee Spheri- and Aquapore Phases

Phase	Functional Group	Particle Size (µm)	Pore Size (Å)	Surface Area (m ² /g)	Carbon Load (%)	Endcapped
Spheri-RP-8	C8, monofunctional	5, 10	80	180	6	Yes
Spheri-RP-18	C18, monofunctional	5, 10	80	180	11	Yes
Spheri-ODS	C18, polyfunctional	5	80	180	14	Yes
Aquapore Butyl, BU-300	C4	7	300	100	3	Yes
Aquapore Octyl, RP-300	C8	7	300	100	5	Yes
Aquapore ODS, OD-300	C18	7	300	100	10	Yes

MPLC Cartridge Hardware

Description	Part Number
3cm cartridge holder 	0715-0013
10cm cartridge holder 	0715-0014
22cm cartridge holder 	0715-0015
10cm cartridge holder incorporating NewGuard system 	0715-0016
22cm cartridge holder incorporating NewGuard system 	0715-0017

Ordering Information – Brownlee Spheri- and Aquapore Phases

Brownlee Phase	Cartridge Dimensions ¹ (mm)						NewGuard Cartridge ³ 15 x 3.2mm (3/pk)
	30 x 2.1 ²	30 x 4.6 ²	100 x 2.1	100 x 4.6	220 x 2.1	220 x 4.6	
Spheri-5, RP-8	-	0711-0001	0711-0004	0711-0003	0711-0006	0711-0005	-
Spheri-5, RP-18	0711-0014	0711-0013	0711-0016	0711-0015	0711-0018	0711-0017	-
Spheri-5, ODS	0711-0020	0711-0019	0711-0022	0711-0021	0711-0024	0711-0023	-
Spheri-10, RP-8	-	0711-0121	-	0711-0123	-	-	-
Spheri-10, RP-18	-	0711-0115	-	0711-0117	-	0711-0119	-
Aquapore Butyl, BU-300	0711-0062	0711-0061	0711-0064	-	-	-	0711-0088
Aquapore Octyl, RP-300	0711-0056	0711-0055	0711-0058	0711-0057	0711-0060	0711-0059	0711-0090
Aquapore ODS, OD-300	0711-0234	0711-0235	0711-0233	0711-0232	0711-0236	0711-0231	0711-0092
Cartridge holder hardware alone	0715-0013	0715-0013	0715-0014	0715-0014	0715-0015	0715-0015	-
Cartridge holder hardware incorporating integral NewGuard system	-	-	0715-0016	0715-0016	0715-0017	0715-0017	-

¹ Use with appropriate length cartridge holder 0715-0013/0014/0015

² 2/pk

³ Use with appropriate length integral cartridge holder 0715-0016/0017

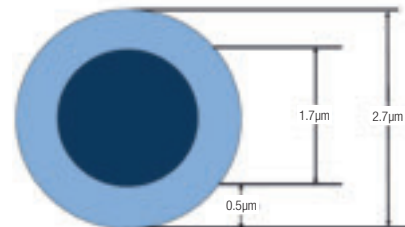
Brownlee™ SPP

- Superficially porous 2.7µm particles
- 'UHPLC-like' separations on standard HPLC systems
- Ultra fast performance and efficiency using UHPLC systems
- Faster method development
- Maximum pressure 9,000psi

Brownlee™ Superficially Porous Particle (SPP) columns use 2.7µm particles comprised of a thin outer shell of porous silica fused to a solid inner core. This allows for a shorter diffusion path compared to 3µm fully porous particles, which reduces the time solute molecules spend inside the particles while passing through the stationary phase. This, in turn, keeps back pressure to a minimum and improves column efficiency.

Brownlee SPP columns allow for higher sample throughput whilst maintaining high resolution. A 50% improvement in efficiency may be achieved using a conventional HPLC system with no instrument modification.

The particles in Brownlee SPP columns have an extremely narrow size distribution range, enabling them to be more easily and robustly packed into the column. This results in columns that are extremely rugged, reproducible and reliable.



Brownlee SPP Phases

Phase	Pore Size (Å)	Endcapped	pH Range	Temperature Limit (°C)	Applications
C18	90	Yes	2 - 9	60	General purpose C18
C8	90	Yes	2 - 9	60	General purpose C8
HILIC	90	No	2 - 9	60	General purpose unbonded silica for NP and HILIC applications
Peptide ES-C18	160	No	1 - 8	90	Sterically protected ligand results in Extra Stable bonded phase at low pH where most peptide separations are performed
PFP	90	Yes	2 - 8	60	High retentivity and selectivity for protonated basic analytes and molecules containing aromatic moieties
Phenyl-Hexyl	90	Yes	2 - 9	60	Alternative selectivity to alkyl bonded phases, recommended for aromatic groups. Compatible with highly aqueous eluents
RP-Amide	90	Yes	2 - 9	60	Shows significantly increased retention and selectivity of acids. Excellent peak shape for bases, zwitterions and other polar compounds

Ordering Information - Brownlee SPP Phases

Brownlee SPP Phase	Column Dimensions ¹ (mm)				Guard Cartridges ² (3/pk) (5 x 2.1mm)
	20 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	
C18	N9308400	N9308402	N9308404	N9308405	N9308513
C8	N9308418	N9308420	N9308422	N9308423	N9308522
HILIC	-	N9308436	N9308438	N9308439	N9308525
Peptide ES-C18	-	N9308451	N9308453	N9308454	N9308528
PFP	N9308465	N9308467	N9308469	N9308470	N9308531
Phenyl-Hexyl	N9308481	N9308483	N9308485	N9308486	N9308519
RP-Amide	N9308497	N9308499	N9308501	N9308502	N9308516

Brownlee SPP Phase	Column Dimensions ¹ (mm)				Guard Cartridges ² (3/pk) (5 x 4.6mm)
	20 x 4.6	50 x 4.6	100 x 4.6	150 x 4.6	
C18	N9308412	N9308414	N9308416	N9308417	N9308515
C8	N9308429	N9308431	N9308433	N9308434	N9308524
HILIC	-	N9308446	N9308448	N9308449	N9308527
Peptide ES-C18	-	N9308461	N9308463	N9308464	N9308530
PFP	-	N9308477	N9308479	N9308480	N9308533
Phenyl-Hexyl	-	N9308493	N9308495	N9308496	N9308521
RP-Amide	-	N9308509	N9308511	N9308512	N9308518

¹ Other column dimensions available

² Use with guard cartridge holder N9308534