



HICHROM

Chromatography Columns and Supplies

**LC COLUMNS
Waters
Symmetry and
SymmetryShield**

Catalogue 9

Hichrom Limited

**1 The Markham Centre, Station Road
Theale, Reading, Berks, RG7 4PE, UK**

Tel: +44 (0)118 930 3660 Fax: +44 (0)118 932 3484

Email: sales@hichrom.co.uk www.hichrom.co.uk

Waters Symmetry® and SymmetryShield™

- Spherical porous silica
- C18 and C8 chemistries
- SymmetryShield polar embedded phase

Symmetry® and SymmetryShield™ columns are manufactured by the Waters Corporation. Both phases are available with C18 and C8 bonded chemistries.

Symmetry and SymmetryShield Phases

Phase	Particle Size (µm)	Pore Size (Å)	Surface Area (m ² /g)	Carbon Load (%)	Endcapped
Symmetry C18	3.5, 5	100	335	19	Yes
Symmetry C8	3.5, 5	100	335	12	Yes
SymmetryShield RP18	3.5, 5	100	335	17	Yes
SymmetryShield RP8	3.5, 5	100	335	15	Yes

Symmetry C18 and C8 are conventional USP L1 and L7 phases respectively. SymmetryShield phases contain an embedded polar group that 'shields' the silica's residual surface silanols from highly basic analytes and are suitable for applications requiring low organic, high aqueous eluent conditions. SymmetryShield columns exhibit less retention for basic compounds than conventional C18 and C8 columns.



Structure of SymmetryShield

Ordering Information

Analytical Columns

Phase	Column Dimensions ¹ (mm)						
	50 x 2.1	100 x 2.1	150 x 3.0	150 x 3.9	100 x 4.6	150 x 4.6	250 x 4.6
3.5µm				-			-
Symmetry C18	200650	58965	186000695	-	66220	200632	-
Symmetry C8	200624	58961	186000697	-	66204	200630	-
SymmetryShield RP18	186000172	186000173	186000699	-	186000179	186000180	-
SymmetryShield RP8	94257	58969	186000702	-	94266	94269	-
5µm							
Symmetry C18	186000206	186002608	54200	46980	186002616	45905	54275
Symmetry C8	186000212	186002609	54230	46970	186002617	45995	54270
SymmetryShield RP18	186000217	186000998	186000692	186000108	186002618	186000109	186000112
SymmetryShield RP8	186000223	186002611	94243	200655	186002619	200662	200670

Analytical Sentry Guards²

Dimensions (mm)	Particle Size (µm)	Phase		Price
Symmetry Phase		C18	C8	
10 x 2.1 (2/pk)	3.5	106127	106128	
20 x 3.9 (2/pk)	5	54225	54250	
SymmetryShield Phase		RP18	RP8	
10 x 2.1 (2/pk)	3.5	186000169	106129	
20 x 3.9 (2/pk)	3.5	186000701	186000704	
20 x 3.9 (2/pk)	5	186000107	200675	

¹ Other dimensions and cartridge columns available

² Use with universal Sentry guard holder 46910