

Hypersil BDS HPLC columns

Robust and rugged, delivering excellent reproducibility and peak symmetry

Benefits

- Reduced silanol interactions
- Reduced peak tailing
- Reduced need for mobile phase additives
- Excellent peak symmetry
- Long column lifetimes
- Improved performance with basic, neutral and acidic compounds

Keywords

High performance liquid chromatography, HPLC columns, separation, reversed-phase, pharmaceuticals, C18, C8, Cyano, Phenyl

Phase overview

The Thermo Scientific™ Hypersil™ BDS column is a base deactivated silica, an excellent reversed-phase material for a wide range of applications. It was introduced in 1988 as one of the first base deactivated silicas. These columns have gained respect worldwide for their quality, reliability, range of applications, robustness and reproducibility. The Hypersil BDS media and columns are manufactured to the highest standards and are rigorously quality-control tested. Hypersil BDS packings were among the first base deactivated silica HPLC packings to offer the characteristics associated with these surface improvements

Hypersil BDS columns are a good choice for QA/QC labs as a robust general-purpose column in applications where reproducibility and long column lifetimes are required. Hypersil BDS C18 columns are applicable to a wide range of analytes including acids, bases and neutrals.

Many chemical properties associated with derivatized silicas used in HPLC have a strong effect on analyte interactions. These properties are specific to either the derivatized ligand itself, or the remaining underivatized silanol groups on the silica surface. In particular, the number and acidity of these

remaining silanol groups is of significance. It is the silanol groups that are responsible for the acid-base properties of the base silica, contributing to the overall polarity of the surface even when the surface method is derivatized. Their type and acidity play an important role in determining resolution and peak shape for various classes of compounds being analyzed.

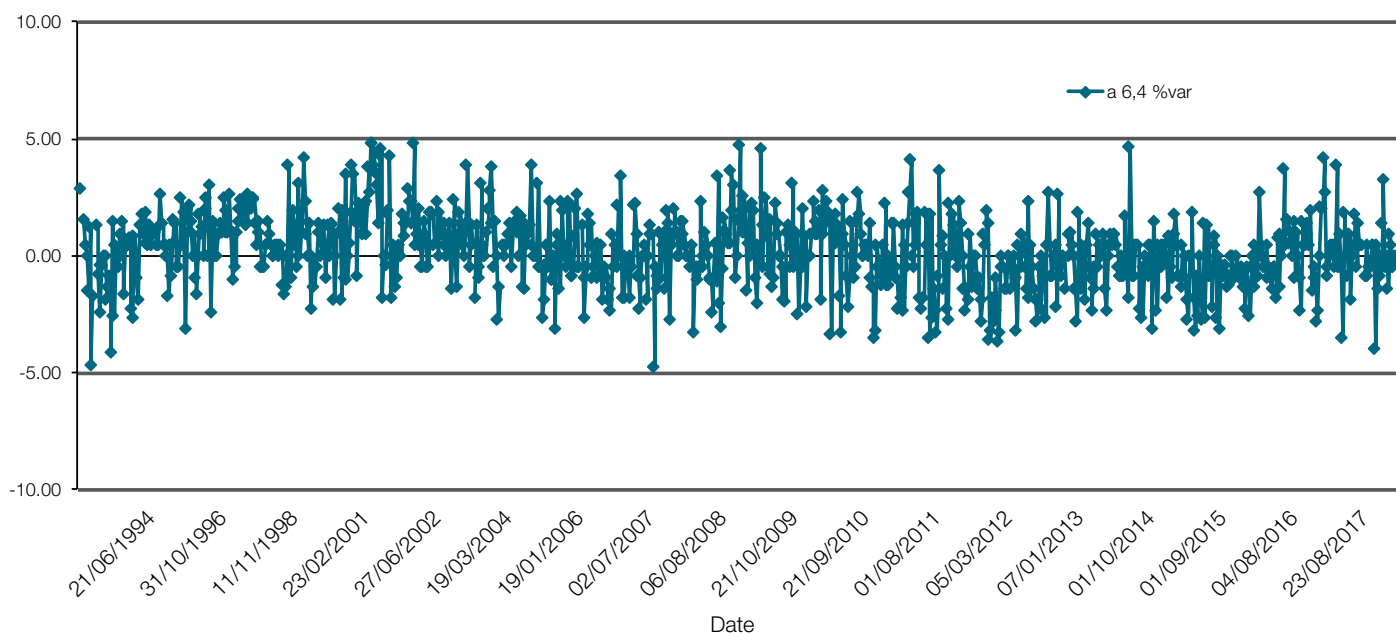
Hypersil BDS was developed for the analysis of both basic and acidic compounds without the requirement for competing additives (ion pair reagents) in the mobile phase. A proprietary treatment to the silica surface results in significant improvements to the homogeneity of the surface silanol population prior to derivatization.

Reproducibility

Column reproducibility is critical for the transfer of newly developed methods to other laboratories around the world. Column performance parameters are key factors in determining reproducibility from column-to-column. Thermo Fisher Scientific strives continuously to provide HPLC columns of the highest standard with a strong focus on reproducibility. Our stringent quality control measures ensure that the required batch-to-batch and column-to-column reproducibility is achieved.

Hypersil column phases

Hypersil BDS columns are available in four bonded phases: C18, C8, Cyano and Phenyl functionality. All Hypersil BDS columns offer the same high-quality base deactivated surface chemistry with endcapping to minimize peak tailing, even for basic drugs. Each Hypersil BDS column comes with a Certificate of Authenticity.



Batch-to-batch selectivity reproducibility for over 25 years of manufacturing.

Specifications

Phase	Particle size	Particle shape	Pore size (Å)	Surface area (m ² /g)	% Carbon	End-capped	USP code
Hypersil BDS C18	2.4, 3, 5µm	Spherical	130	170	11	Yes	L1
Hypersil BDS C8	2.4, 3, 5µm	Spherical	130	170	7	Yes	L7
Hypersil BDS Cyano	3, 5µm	Spherical	130	170	4	Yes	L10
Hypersil BDS Phenyl	3, 5µm	Spherical	130	170	5	Yes	L11

Hypersil BDS C18 and C8 ordering information

Particle size (µm)	Format	Length (mm)	Internal diameter (mm)	Hypersil BDS C18	Hypersil BDS C8			
2.4	Drop-in Guard (4/pk)	10	2.1	28102-012101				
			4.0/4.6	28102-014001	28202-014001			
	HPLC Column	50	50	2.1	28102-052130	28202-052130		
				4.6	28102-054630			
		100	100	2.1	28102-102130	28202-102130		
				4.6	28102-104630			
				4.6	28102-154630	28202-154630		
		3	Drop-in Guard (4/pk)	10	2.1	28103-012101	28203-012101	
					3	28103-013001	28203-013001	
4.0/4.6	28103-014001				28203-014001			
HPLC Column	30		30	2.1	28103-032130			
				50	50	2.1	28103-052130	28203-052130
						3	28103-053030	28203-053030
	100		100	4.6	28103-054630	28203-054630		
				2.1	28103-102130	28203-102130		
				3	28103-103030	28203-103030		
				4.0	28103-104030	28203-104030		
	150	150	4.6	28103-104630	28203-104630			
			2.1	28103-152130				
			3	28103-153030	28203-153030			
			4.0	28103-154030				
			4.6	28103-154630	28203-154630			
5	Drop-in Guard (4/pk)	10	2.1	28105-012101	28205-012101			
			3	28105-013001	28205-013001			
			4.0/4.6	28105-014001	28205-014001			
	HPLC Column	50	50	2.1	28105-052130	28205-052130		
				3	28105-053030	28205-053030		
				4.6	28105-054630	28205-054630		
		100	100	2.1	28105-102130	28205-102130		
				3	28105-103030			
				4.0	28105-104030			
				4.6	28105-104630	28205-104630		
		125	125	3	28105-123030			
				4.0	28105-124030	28205-124030		
				4.6	28105-124630	28205-124630		
		150	150	2.1	28105-152130			
				3	28105-153030			
				4.0	28105-154030	28205-154030		
4.6	28105-154630			28205-154630				
250	250	2.1	28105-252130					
		3	28105-253030					
		4.0	28105-254030	28205-254030				
		4.6	28105-254630	28205-254630				

Hypersil BDS Cyano and Phenyl ordering information

Particle size (µm)	Format	Length (mm)	Internal diameter (mm)	Hypersil BDS Cyano	Hypersil BDS Phenyl
3	Drop-in Guard (4/pk)	10	4.0/4.6	28803-014001	28903-014001
	HPLC Column	50	4.6		28903-054630
		100	4.6		28903-104630
		150	4.6	28803-154630	28903-154630
5	Drop-in Guard (4/pk)	10	4.0/4.6	28805-014001	28905-014001
	HPLC Column	50	2.1		28905-102130
		100	4.0	28805-104030	
			4.6		28905-104630
		150	3.0	28805-153030	
			4.6	28805-154630	28905-154630
		250	4.0		28905-254030
			4.6	28805-254630	28905-254630
300	4.0	28805-304030	28905-304030		

UNIGUARD Guard Cartridge Holder ordering information

Particle size (µm)	Format	Length (mm)	Internal diameter (mm)	For use with all Hypersil BDS columns
NA	Cartridge Holder	10	2.1	852-00
			3	852-00
			4.0/4.6	850-00

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