



Sepax Hydrophilic Interaction Chromatography (HILIC) Separation – More Choices for Your Compounds

Innovative Surface Chemistry

Column Information

To solve the challenges of more and more highly polar pharmaceuticals and small biological molecules, Sepax developed a series of chemistries of weak acidic, neutral, and basic stationary phases for separating basic, neutral and acidic compounds of high polarity. Utilizing highest purity and enhanced mechanical stability silica and pure bonding reagents, Sepax HILIC bonded phases have been innovatively and specially designed to ensure maximum surface coverage, resulting in high stability of the stationary phases. The chemistry of monolayer formation is completely controlled that results in very reliable lot-to-lot and column-to-column reproducibility. The uniform, spherical Sepax HILIC particles have a nominal surface area of 300 m²/g with a controlled pore size of 120 Å. Sepax HILIC columns are packed with a proprietary slurry technique to achieve uniform and stable packing bed density for maximum column efficiency.

Structure of HILIC Stationary Phases

With the chemical structures shown in Figure 1, Polar-100 and Polar-Diol are neutral, polar phases, while Polar-Diol is more polar than Polar-100. Polar-Silica is a weak acidic phase. Polar-Pyridine and Polar-Imidazole are basic phases, while Imidazole phase is more basic than Pyridine phase.

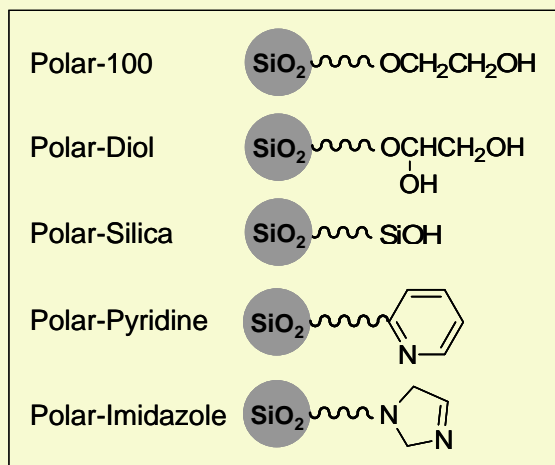


Figure 1. Chemical structures of HILIC phases.

Characteristics

- HILIC phases with unique chemistries of acidic, neutral, and basic surfaces
- Ultra-pure silica particles with controlled pore sizes
- Available in particle size of 1.8, 2.2, 3, 5, and 10 μm
- High chemical stability for low leaching
- Available columns with ID in the range of 75 μm to 30 mm and length from 1 to 30 cm
- Available packings from grams to multi-Kilogram
- pH stability: 1.5 - 8.0
- Suitable for separations of polar pharmaceuticals, peptides, amino acids, and other compounds

Separation of Nucleosides

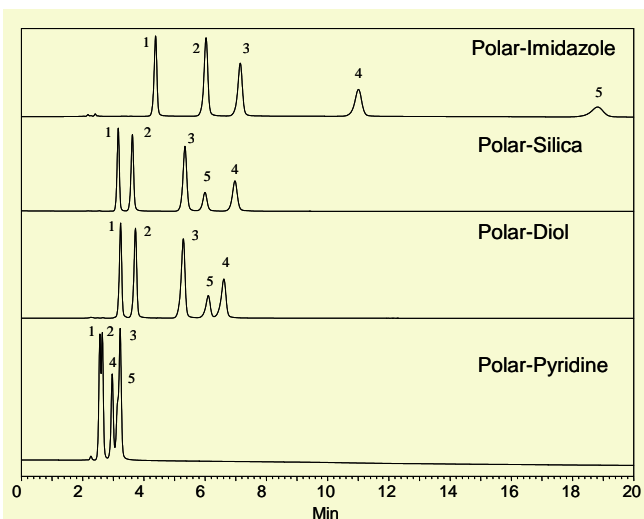


Figure 2. Separation of nucleosides by various HILIC columns (5μm, 4.6x150mm). Mobile phase: 90/10(V/V) = ACN/10mM ammonium acetate in H₂O. Flow rate: 1.0 mL/min. Ambient Temperature. UV 254 nm. Sample: 1. Uracil, 2. Adenosine, 3. Uridine, 4. Cytidine, 5. Guanosine.

Selection of Sepax HILIC columns

Phases	Standard particle size (μm)	Standard pore size (Å)	Other available particle size (μm)	Other available pore size* (Å)
Polar-100	3, 5	120	1.7, 2.2, 10	200, 300
Polar-Diol	3, 5	120	1.7, 2.2, 10	200, 300
Polar-Silica	3, 5	120	1.7, 2.2, 10	200, 300
Polar-Pyridine	3, 5	120	1.7, 2.2, 10	200, 300
Polar-Imidazole	3, 5	120	1.7, 2.2, 10	200, 300

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Sepax HILIC Analytical and Preparative Column Products

Ordering Information

3 μm Analytical Columns (length x ID mm)						Guard column
Phases (120 Å)	30x2.1	50x2.1	100x2.1	150x2.1	250x2.1	10x2.0*
Polar-Silica	130003-2103	130003-2105	130003-2110	130003-2115	130003-2125	130003-2001
HILIC Polar-100	131583-2103	131583-2105	131583-2110	131583-2115	131583-2125	131583-2001
Polar-Diol	133333-2103	133333-2105	133333-2110	133333-2115	133333-2125	133333-2001
Polar-Pyridine	134253-2103	134253-2105	134253-2110	134253-2115	134253-2125	134253-2001
Polar-Imidazole	135333-2103	135333-2105	135333-2110	135333-2115	135333-2125	135333-2001

3 μm Analytical Columns (length x ID mm)						Guard column
Phases (120 Å)	30x4.6	50x4.6	100x4.6	150x4.6	250x4.6	10x4.0*
Polar-Silica	130003-4603	130003-4605	130003-4610	130003-4615	130003-4625	130003-4001
HILIC Polar-100	131583-4603	131583-4605	131583-4610	131583-4615	131583-4625	131583-4001
Polar-Diol	133333-4603	133333-4605	133333-4610	133333-4615	133333-4625	133333-4001
Polar-Pyridine	134253-4603	134253-4605	134253-4610	134253-4615	134253-4625	134253-4001
Polar-Imidazole	135333-4603	135333-4605	135333-4610	135333-4615	135333-4625	135333-4001

5 μm Analytical Columns (length x ID mm)						Guard column
Phases (120 Å)	30x2.1	50x2.1	100x2.1	150x2.1	250x2.1	10x2.0*
Polar-Silica	130005-2103	130005-2105	130005-2110	130005-2115	130005-2125	130005-2001
HILIC Polar-100	131585-2103	131585-2105	131585-2110	131585-2115	131585-2125	131585-2001
Polar-Diol	133335-2103	133335-2105	133335-2110	133335-2115	133335-2125	133335-2001
Polar-Pyridine	134255-2103	134255-2105	134255-2110	134255-2115	134255-2125	134255-2001
Polar-Imidazole	135335-2103	135335-2105	135335-2110	135335-2115	135335-2125	135335-2001

5 μm Analytical Columns (length x ID mm)						Guard column
Phases (120 Å)	30x4.6	50x4.6	100x4.6	150x4.6	250x4.6	10x4.0*
Polar-Silica	130005-4603	130005-4605	130005-4610	130005-4615	130005-4625	130005-4001
HILIC Polar-100	131585-4603	131585-4605	131585-4610	131585-4615	131585-4625	131585-4001
Polar-Diol	133335-4603	133335-4605	133335-4610	133335-4615	133335-4625	133335-4001
Polar-Pyridine	134255-4603	134255-4605	134255-4610	134255-4615	134255-4625	134255-4001
Polar-Imidazole	135335-4603	135335-4605	135335-4610	135335-4615	135335-4625	135335-4001

5 µm preparative and semi-preparative Columns (length x ID mm)					Guard column
Phases (120 Å)	150x7.8	250x7.8	150x10	250x10	10x4.0*
Polar-Silica	130005-7815	130005-7825	130005-10015	130005-10025	130005-4001
HILIC Polar-100	131585-7815	131585-7825	131585-10015	131585-10025	131585-4001
Polar-Diol	133335-7815	133335-7825	133335-10015	133335-10025	133335-4001
Polar-Pyridine	134255-7815	134255-7825	134255-10015	134255-10025	134255-4001
Polar-Imidazole	135335-7815	135335-7825	135335-10015	135335-10025	135335-4001

* Guard column cartridge does not include the cartridge holder

5 µm preparative and semi-preparative Columns (length x ID mm)					Guard column	
Phases (120 Å)	50x21.2	100x21.2	150x21.2	250x21.2	300x21.2	10x21.2**
Polar-Silica	130005-21205	130005-21210	130005-21215	130005-21225	130005-21230	130005-21201
HILIC Polar-100	131585-21205	131585-21210	131585-21215	131585-21225	131585-21230	131585-21201
Polar-Diol	133335-21205	133335-21210	133335-21215	133335-21225	133335-21230	133335-21201
Polar-Pyridine	134255-21205	134255-21210	134255-21215	134255-21225	134255-21230	134255-21201
Polar-Imidazole	135335-21205	135335-21210	135335-21215	135335-21225	135335-21230	135335-21201

** Guard column cartridge does not include the cartridge holder

5 µm preparative and semi-preparative Columns (length x ID mm)					Guard column	
Phases (120 Å)	50x30	100x30	150x30	250x30	250x50	10x21.2*
Polar-Silica	130005-30005	130005-30010	130005-30015	130005-30025	130005-50025	130005-21201
HILIC Polar-100	131585-30005	131585-30010	131585-30015	131585-30025	131585-50025	131585-21201
Polar-Diol	133335-30005	133335-30010	133335-30015	133335-30025	133335-50025	133335-21201
Polar-Pyridine	134255-30005	134255-30010	134255-30015	134255-30025	134255-50025	134255-21201
Polar-Imidazole	135335-30005	135335-30010	135335-30015	135335-30025	135335-50025	135335-21201

10 µm preparative and semi-preparative Columns (length x ID mm)					Guard column
Phases (120 Å)	250x7.8	100x10	150x10	250x10	10x4.0*
Polar-Silica	130009-7825	130009-10010	130009-10015	130009-10025	130009-4001
HILIC Polar-100	131589-7825	131589-10010	131589-10015	131589-10025	131589-4001
Polar-Diol	133339-7825	133339-10010	133339-10015	133339-10025	133339-4001
Polar-Pyridine	134259-7825	134259-10010	134259-10015	134259-10025	134259-4001
Polar-Imidazole	135339-7825	135339-10010	135339-10015	135339-10025	135339-4001

* Guard column cartridge does not include the cartridge holder

10 µm preparative and semi-preparative Columns (length x ID mm)						Guard column
Phases (120 Å)	50x21.2	100x21.2	150x21.2	250x21.2	300x21.2	10x21.2**
Polar-Silica	130009-21205	130009-21210	130009-21215	130009-21225	130009-21230	130009-21201
HILIC Polar-100	131589-21205	131589-21210	131589-21215	131589-21225	131589-21230	131589-21201
Polar-Diol	133339-21205	133339-21210	133339-21215	133339-21225	133339-21230	133339-21201
Polar-Pyridine	134259-21205	134259-21210	134259-21215	134259-21225	134259-21230	134259-21201
Polar-Imidazole	135339-21205	135339-21210	135339-21215	135339-21225	135339-21230	135339-21201

10 µm preparative and semi-preparative Columns (length x ID mm)						Guard column
Phases (120 Å)	50x30	100x30	150x30	250x30	250x50	10x21.2**
Polar-Silica	130009-30005	130009-30010	130009-30015	130009-30025	130009-50025	130009-21201
HILIC Polar-100	131589-30005	131589-30010	131589-30015	131589-30025	131589-50025	131589-21201
Polar-Diol	133339-30005	133339-30010	133339-30015	133339-30025	133339-50025	133339-21201
Polar-Pyridine	134259-30005	134259-30010	134259-30015	134259-30025	134259-50025	134259-21201
Polar-Imidazole	135339-30005	135339-30010	135339-30015	135339-30025	135339-50025	135339-21201

** Guard column cartridge does not include the cartridge holder

* Cartridge holder

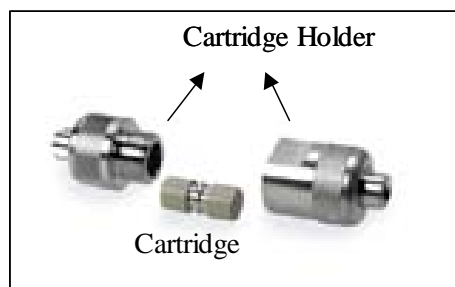
P/N# 102000-2001, \$42.50/EA for 10x20 mm guard cartridge

P/N# 102000-4001, \$42.50/EA for 10x40 mm guard cartridge

** Cartridge holder

P/N# 102000-21201, \$175/EA for 10x21.2 mm

guard cartridge



21.2mm in-line filter
P/N 102020-21200
\$175/ea



Ordering Information

How to Order

It's fast and easy to order from Sepax on-line store at

www.sepax-tech.com

Or, contact Sepax sales department

By Phone: (302) 366-1101

By Fax: (302) 366-1105

By e-mail

Sales@sepax-tech.com

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- Notify us immediately of the damaged shipment in order for us to make the appropriate adjustment and/or provide you with return instructions.

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