



Thermo Scientific
Accucore HPLC Columns
Phase Overview



Ultimate Core Performance
to Maximize Your Investment

Thermo
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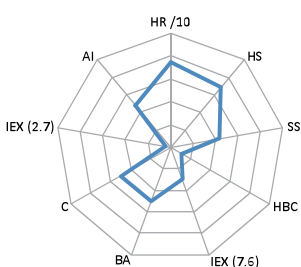
HPLC Column Selectivity

Radar plots show the results of the Accucore phase characterization and allow for quick and easy comparison of the phase selectivities.

(refer to the technical guide for full details, visit www.thermoscientific.com/accucore)

Phase Properties and Characterization

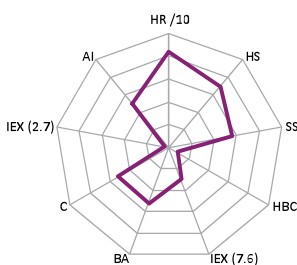
Accucore RP-MS



Optimized for MS detection, excellent combination of speed and quality of separation

- Optimized for MS detection
- Excellent Peak Shapes
- Excellent Combination of Speed and Efficiency

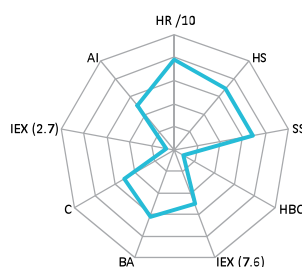
Accucore C18



Optimum retention for non-polar analytes

- Optimum retention of non-polar compounds
- Hydrophobic interaction mechanism
- Separate a broad range of analytes

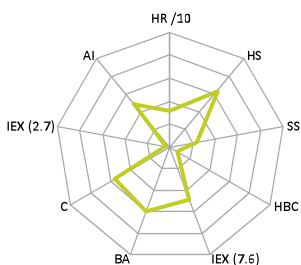
Accucore aQ



Compatible with 100% aqueous mobile phases, special selectivity for polar analytes

- Retention and Resolution of Polar Analytes
- Polar Endcapped C18 Stationary Phase for Alternative Selectivity
- Ideal for Highly Aqueous Mobile Phases

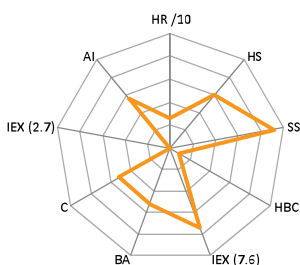
Accucore Phenyl-Hexyl



Unique selectivity for aromatic and moderately polar analytes

- Mixed-Mode Selectivity for Aromatic and Moderately Polar Analytes
- Enhanced Pi-pi Interactions with Aromatics
- Moderate Hydrophobicity

Accucore PFP



Alternative selectivity to C18, particularly for halogenated analytes

- Alternative Selectivity to C18
- Extra Retention for Halogenated Species
- Unique Selectivity for Non-halogenated Polar Compounds

Accucore HILIC

HILIC

Enhanced Retention of polar and hydrophilic analytes

- Enhanced Retention of Polar and Hydrophilic Analytes
- Alternative Selectivity to C18 without Ion-pair or Derivatization
- Improved Sensitivity for MS detection

Phase Overview

Particle Details

Particle Diameter	2.6µm
Particle Size Distribution (D90/10)	1.12
Pore Diameter	80Å
Surface Area	130m ² /g

Phase Details

Phase Name	Carbon Load	USP Category
Accucore RP-MS	7%	–
Accucore C18	9%	L1
Accucore aQ	9%	L1
Accucore Phenyl-Hexyl	5%	L11
Accucore PFP	5%	L43
Accucore HILIC	–	L3

pH Stability

Phase Name	pH Range
Accucore C18	1 to 11
Accucore RP-MS, aQ	2 to 9
Accucore Phenyl-Hexyl, PFP, HILIC	2 to 8

Temperature Stability

Maximum Temperature 70°C
Based on testing on Accucore C18

Core Enhanced Technology offers the advantages associated with sub-2µm packing materials – fast, high-resolution separations – without the high backpressures required to work with the smaller particles.





Optimum Flow Rate, Injection Volume and Loading

Column ID (mm)	Flow Rate (mL/min)	Injection Volume (µL)	Loading on Column (µg)
2.1	0.4	1	2
3.0	0.8	3	5
4.6	1.8	5	10

Shipping Solvents

Phase Name	Solvent
Accucore RP-MS, C18, aQ, Phenyl-Hexyl, PFP	Acetonitrile /Water (50:50)
Accucore HILIC	Acetonitrile /Water (90:10)

Cleaning Procedure

Before starting ensure that the solvent in the column is miscible with the cleaning solvents. Using 50% of the working flow rate, flush the column with 20 column volumes of each of the solvents below in the order shown.

Phase Name	Solvent
Accucore C18, RP-MS, aQ, Phenyl-Hexyl, PFP	<ol style="list-style-type: none">1. 90% Water / 10% Acetonitrile (for buffer removal if required)2. 50% THF / 50% Acetonitrile3. Acetonitrile4. Re-equilibrate with mobile phase
Accucore HILIC	<ol style="list-style-type: none">1. 10% Water / 90% Acetonitrile (for buffer removal if required)2. 50% water / 50% Acetonitrile3. Re-equilibrate with mobile phase

Ordering Information

Accucore HPLC Columns

Description	Particle Size	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
Accucore RP-MS	2.6µm	30	17626-032130	17626-033030	17626-034630
		50	17626-052130	17626-053030	17626-054630
		100	17626-102130	17626-103030	17626-104630
		150	17626-152130	17626-153030	17626-154630
Accucore C18	2.6µm	30	17126-032130	17126-033030	17126-034630
		50	17126-052130	17126-053030	17126-054630
		100	17126-102130	17126-103030	17126-104630
		150	17126-152130	17126-153030	17126-154630
Accucore aQ	2.6µm	30	17326-032130	17326-033030	17326-034630
		50	17326-052130	17326-053030	17326-054630
		100	17326-102130	17326-103030	17326-104630
		150	17326-152130	17326-153030	17326-154630
Accucore Phenyl-Hexyl	2.6µm	30	17926-032130	17926-033030	17926-034630
		50	17926-052130	17926-053030	17926-054630
		100	17926-102130	17926-103030	17926-104630
		150	17926-152130	17926-153030	17926-154630
Accucore PFP	2.6µm	30	17426-032130	17426-033030	17426-034630
		50	17426-052130	17426-053030	17426-054630
		100	17426-102130	17426-103030	17426-104630
		150	17426-152130	17426-153030	17426-154630
Accucore HILIC	2.6µm	30	17526-032130	17526-033030	17526-034630
		50	17526-052130	17526-053030	17526-054630
		100	17526-102130	17526-103030	17526-104630
		150	17526-152130	17526-153030	17526-154630

Accucore Defender Guard Columns (4/pk)

Description	Particle Size	Length (mm)	2.1mm ID	3.0mm ID	4.6mm ID
Accucore RP-MS	2.6µm	10	17626-012105	17626-013005	17626-014005
Accucore C18	2.6µm	10	17126-012105	17126-013005	17126-014005
Accucore aQ	2.6µm	10	17326-012105	17326-013005	17326-014005
Accucore Phenyl-Hexyl	2.6µm	10	17926-012105	17926-013005	17926-014005
Accucore PFP	2.6µm	10	17426-012105	17426-013005	17426-014005
Accucore HILIC	2.6µm	10	17526-012105	17526-013001	17526-014005

UNIGUARD Direct-Connection Guard Cartridge Holders

Description	2.1mm ID	3.0mm ID	4.6mm ID
UNIGUARD Drop-In Guard Cartridge Holder	852-00	852-00	850-00
Standard Replacement Tip	850-RT	850-RT	850-RT

Accucore Validation Kit

Description	Particle Size	Length (mm)	2.1mm ID
3 Accucore C18 columns	2.6µm	50	17126-052130-3V
		100	17126-102130-3V
		150	17126-152130-3V

Accucore Narrow Selectivity Kit

Description	Particle Size	Length (mm)	2.1mm ID
1 each of Accucore C18, RP-MS and aQ columns	2.6µm	50	17X26-052130-3VA
		100	17X26-102130-3VA
		150	17X26-152130-3VA

Accucore Wide Selectivity Kit

Description	Particle Size	Length (mm)	2.1mm ID
1 each of Accucore C18, Phenyl-Hexyl and PFP columns	2.6µm	50	17X26-052130-3VB
		100	17X26-102130-3VB
		150	17X26-152130-3VB

Accucore Polar Selectivity Kit

Description	Particle Size	Length (mm)	2.1mm ID
1 each of Accucore aQ, PFP and HILIC columns	2.6µm	50	17X26-052130-3VC
		100	17X26-102130-3VC
		150	17X26-152130-3VC

For more information, visit
www.thermoscientific.com/accucore



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